MINISTRY OF EDUCATION AND TRAINING
HO CHI MINH UNIVERSITY OF ECONOMICS AND FINANCE

SCIENCE RESEARCH TOPIC

APPLICATION OF KPIS AND WEB ANALYTICS IN E-COMMERCE WEBSITE: A CASE STUDY OF GOOGLE MERCHANDISE STORE

Instructor : Master Tran Thanh Cong

Member: Nguyen To Anh - 215122108
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Lớp: 21D1TM - MK04

Ho Chi Minh City – 2024

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INSTRUCTOR'S COMMENTS

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Instructor

Master Tran Thanh Cong

OPENING STATEMENT

First of all, we would like to express our sincere and deep gratitude to **Mr. Tran Thanh Cong** - our beloved teacher, lecturer of the subject **"Web Data Analysis",** who has always accompanied and guided us throughout the last semester. He is a great source of inspiration and motivation that helps us complete the analysis report with the most enthusiasm and dedication. The profound specialized knowledge, interesting analytical exercises and valuable data sources that the teacher has shared during the learning process will certainly become invaluable tools to help us develop our skills better for the next subjects and also in the path we choose in our future work.

We are not afraid to admit that there are still many limitations in our knowledge and ability to evaluate data. Our analysis may not be free of errors, but the important thing is that we have always tried and been extremely careful to create the best report possible.

With the spirit of learning and willingness to receive feedback, we look forward to receiving constructive reviews and suggestions from teachers and classmates. These will be valuable contributions to help us complete our thesis and improve the quality of our work.

Finally, we would like to sincerely thank everyone who has supported and accompanied our group during the past time. This solidarity and support has been a great motivation to help us overcome difficulties and make progress in our studies.

Thank you very much!

Best regards,

Group 5

TASK DISTRUBITION

No	FULL NAME	Student ID	Task	Level of Accomplishment	
1	Nguyễn Tố Anh	215122108	Report, slide, research information, present	**100%**	
2	Đoàn Tiến Đạt	215122135	Report, slide, research information, present	**100%**	
3	Trịnh Thị Hà Linh	215122273	Report, slide, research information, present	**100%**	
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5	Nguyễn Phạm Thanh Thảo	251122285	Report, slide, research information, present	**100%**	

SYNOPSIS

Assigned by the course instructor, the final report is **Application of KPIS and web analytics in e-commerce websites: a case study of Google Merchandise store**, based on the theoretical basis of knowledge taught in the subject "**Web Data Analysis**" in chapter training program of UEF university.

The report includes 3 the following main contents:

- **Part 1:** Theoretical basis: Overview of the Digital Marketing Environment, Overview of KPIs and Web Analytics, Specialized terms are used.
- **Part 2:** Case study "Application of KPIs and Web analytics in E-commerce website: A case study of Google Merchandise Store": Overview , Google Merchandise Store data analysis, Recommendations and Best Practices.
- **Part 3:** Conclusion

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A. Introduction

I. Project objectives

Using KPIs and data analysis in business campaigns is crucial in the current era of technological advancement. It's a tool, an element that aids businesses in seeing their operations, managing them, and taking appropriate action to address issues in the event that operations are not succeeding.

This report aims to examine various facets of key performance indicators (KPIs) and the implementation of Google Merchandise web analytics. This includes selecting pertinent metrics, utilizing analytics tools, and presenting data-driven information in detail.

The study highlights the value of website analytics in helping companies better understand their clients in addition to measuring KPI-related metrics. Subsequently, suitable KPIs will be established and solutions will be suggested.

II. Project scope

This project aims to comprehensively analyze and develop Performance Indicators (KPIs) and analyze Website data in the Google Merchandise Store.

Here, we used the Google Analytics tool to analyze Merchandise store data. Based on the results of our analysis, we have provided useful recommendations to optimize your store's performance on the web's digital marketplace.

B. Theoretical basis

I. Overview of the Digital Marketing Environment:

1. Definition of Digital Marketing Environment

The digital marketing environment refers to the interconnected network of digital platforms, technologies, channels, and strategies within which businesses operate to promote their products or services online. It encompasses various elements, including websites, search engines, social media platforms, email marketing, mobile apps, and other digital channels.

2. Purpose of understanding the digital marketing environment for a company

2.1 Informed Decision-Making:

In the realm of web data analysis, informed decision-making hinges on understanding both micro and macro factors shaping the digital marketing

environment. Micro-environment insights allow companies to customize strategies to meet specific customer needs and gain a competitive edge. By analyzing customer behaviors, preferences, and competitor activities, businesses can refine their approaches and enhance market performance. Moreover, macro-environment awareness is essential for adapting to broader economic, social, and technological trends. By monitoring shifts in consumer behavior, economic indicators, and emerging technologies, companies can proactively adjust their strategies to remain relevant and capitalize on new opportunities.

In essence, leveraging web data enables companies to navigate the dynamic digital landscape with precision, ensuring that decisions are grounded in comprehensive insights and driving sustainable growth in the digital era.

2.2 Strategic Adaptation:

In the fast-paced digital landscape, strategic adaptation is imperative for companies to remain relevant and competitive. By continuously monitoring and understanding the digital environment, businesses can swiftly adjust their marketing campaigns to capitalize on emerging trends and opportunities.For example, during the Covid-19 pandemic, companies quickly pivoted to online channels, placing greater emphasis on e-commerce platforms and virtual experiences to meet evolving consumer demands and behaviors. This agile response enabled companies to maintain customer engagement and revenue streams amidst challenging circumstances. By leveraging web data analysis, companies can proactively identify shifts in consumer preferences, market dynamics, and industry trends, allowing them to make informed decisions and adapt their strategies accordingly. This strategic approach ensures that businesses can not only survive but thrive in the ever-changing digital landscape.

2.3 Risk Mitigation:

To mitigate business risks, it is important for companies to understand the political incentives to anticipate and respond to fluctuations in the business environment, which are influenced by factors such as stability, policy and international relations.

2.4 Effective Targeting:

In the realm of web data analysis, understanding customer preferences, behaviors, and demographics is fundamental for effective targeting strategies. By delving into data insights, companies can pinpoint specific audience segments and tailor their content and experiences accordingly. This personalized approach not only boosts customer engagement but also fosters stronger connections with the audience. Leveraging web data allows businesses to refine their targeting efforts, delivering relevant and compelling content that resonates with their customers, ultimately driving growth and loyalty.

2.5 Competitive Edge:

Adapting to the digital environment is crucial for maintaining a competitive edge in today's business landscape. Companies that proactively embrace digital transformation and leverage emerging technologies gain significant advantages. By staying ahead of trends and integrating innovative solutions, they differentiate themselves and position themselves for long-term success.

3. Key components of the digital marketing ecosystem

The digital marketing realm comprises two core elements: the micro- environment and the macro-environment.

3.1 Micro-environment

The first component of the digital marketing environment is the micro- environment. The micro-environment is referred to as the “operating environment” and focuses on customers’ needs and wants. The customers, competitors, suppliers, and intermediaries’ needs and wants are essential to focus on due to their role in shaping the immediate trading environment. The behaviors of these groups of people shape the online marketplace. Understanding their needs and wants allows marketers to create and adapt their digital strategies to meet their needs and wants.

3.2 Macro-environment

The macro-environment is often referred to as “the remote environment” and is made up of external forces that can influence digital marketing and successfully affect success. These forces include political interventions, economic conditions, social change, technological developments & innovations, legal legislation, and

environmental forces that are beyond the control of the organization itself. Another significant influence on opinions is the ever-evolving social media networks, which enhance digital channels by allowing these forces to communicate information that shapes the opinions of many globally.

By comprehensively assessing both environments, organizations can formulate effective digital marketing strategies that leverage internal strengths, exploit external opportunities, and navigate challenges adeptly, ensuring sustained relevance and competitiveness in today's dynamic digital landscape.

4. Dynamics of the digital marketing landscape

In today's hyper-connected world, digital marketing has become a cornerstone of business strategy, offering unparalleled opportunities to reach and engage with audiences. However, as businesses embrace digital channels to promote their products and services, they must navigate a landscape rife with both advantages and challenges.

4.1 Advantages of Digital Marketing:

4.1.1 Global Reach:

Digital marketing allows businesses to transcend geographical boundaries and reach a global audience. Through platforms like social media, search engines, and email, companies can connect with potential customers worldwide, expanding their market reach exponentially.

4.1.2 Cost-Effectiveness:

Compared to traditional marketing methods, digital marketing is often more cost-effective. Online advertising, for example, offers a range of budget options, from pay-per-click to cost-per-impression, allowing businesses to tailor their spending to their specific needs and goals.

4.1.3 Targeted Advertising:

Digital marketing enables highly targeted advertising, ensuring that messages are delivered to the most relevant audience. Through data analytics and user profiling, businesses can create personalized campaigns that resonate with their target demographic, increasing the likelihood of conversion.

4.1.4 Real-Time Analytics:

One of the major advantages of digital marketing is the ability to track and measure results in real-time. Through tools like Google Analytics and social media insights, businesses can monitor the performance of their campaigns, identify areas for improvement, and make adjustments on the fly to optimize results.

4.1.5 Increased Engagement:

Digital marketing allows for greater engagement with audiences. Through interactive content, social media interactions, and personalized messaging, businesses can foster stronger relationships with customers, leading to increased brand loyalty and advocacy.

4.2 Challenges of Digital Marketing:

4.2.1 Rapidly Evolving Landscape:

Digital marketing is a fast-paced industry, with new technologies, trends, and platforms emerging regularly. Staying ahead of the curve requires businesses to constantly adapt and evolve their strategies to remain relevant and competitive.

4.2.2 Digital Saturation:

The proliferation of digital marketing messages has led to a cluttered online environment, making it increasingly challenging for businesses to cut through the noise and capture audience attention. Standing out requires creativity, innovation, and a deep understanding of the target audience.

4.2.3 Privacy Concerns:

As digital marketing relies heavily on data collection and analysis, there are growing concerns about consumer privacy. Businesses must navigate these concerns carefully, ensuring that they are transparent and ethical in their data practices to maintain consumer trust.

4.2.4 Negative Feedback:

In the digital age, negative feedback can spread rapidly and have a significant impact on a brand's reputation. Businesses must be prepared to address negative feedback promptly and effectively to mitigate any potential damage.

4.2.5 Ad Blocking:

The rise of ad-blocking software has made it increasingly challenging for businesses to reach their target audience through traditional online advertising. To combat this, businesses must explore alternative strategies, such as content marketing and influencer partnerships, to engage with audiences in meaningful ways.

II. Overview of KPIs and Web Analytics:

1. Definition of KPIs

Key Performance Indicators (KPIs) in digital marketing refer to specific, measurable metrics that are used to evaluate the performance and effectiveness of digital marketing campaigns, strategies, and overall online presence. These indicators provide quantifiable data, allowing marketers to assess progress toward goals, make informed decisions, and optimize their digital marketing efforts. KPIs in digital marketing can vary based on the specific objectives and goals of a campaign or business, but they generally fall into different categories.

KPIs work in digital marketing by providing a measurable way to track the success of marketing campaigns and strategies. By setting KPIs and tracking progress towards achieving them, marketers can evaluate the effectiveness of their digital marketing efforts and make data-driven decisions to optimize their campaigns for better results.

2. How KPIs work in digital marketing:

Step 1: Set Goals and Objectives: The first step in using KPIs is to set clear and specific goals and objectives for your digital marketing campaign. This might include increasing website traffic, generating more leads, or improving customer engagement. Once you have identified your goals and objectives, you can choose the KPIs that are most relevant to measuring progress towards those goals.

Step 2: Choose Relevant KPIs: Next, you need to choose the KPIs that are most relevant to your goals and objectives. This might include conversion rate, click-through rate, cost per acquisition, customer lifetime value, return on investment, bounce rate, or social media engagement, among others. It's important to choose KPIs that are specific, measurable, and relevant to your business goals.

Step 3: Set Targets and Benchmarks: Once you have chosen your KPIs, you need to set specific targets and benchmarks for each one. This might include a target conversion rate of 5%, a benchmark click-through rate of 2%, or a target customer lifetime value of $500. By setting targets and benchmarks, you can track progress towards achieving your goals and make informed decisions about how to optimize your campaigns for better results.

Step 4: Track and Analyze Data: Once you have set your KPIs and targets, you need to track and analyze data to measure progress towards achieving those targets. This might include using tools like Google Analytics to track website traffic and conversion rates, or social media monitoring tools to track engagement and brand awareness. By regularly analyzing data and tracking progress towards your KPIs, you can identify areas for improvement and make data-driven decisions to optimize your campaigns for better results.

Step 5: Optimize Campaigns for Better Results: Finally, by using KPIs to track progress towards your goals and objectives, you can make data-driven decisions to optimize your campaigns for better results. This might include testing different marketing messages or ad formats, or adjusting your targeting to reach a more relevant audience. By continually monitoring and optimizing your campaigns, you can improve the effectiveness of your digital marketing efforts and achieve better results over time.

By continuously tracking and monitoring your KPIs, you can make data-driven decisions that will help you achieve your goals and improve your overall business performance.

3. Definition of Web Analytics

Web analytics refers to gathering, measuring, and evaluating website data. Web analytics tools can provide a wealth of helpful information on the source of web traffic, how website visitors interact and navigate across a website, what content and web pages they are most engaged with, and how they leave the site.

By collecting data to make decisions, marketers may use this information to improve the performance of their websites and channels.

III. Specialized terms are used

Terminology	Description
KPI(Key Performance Indicator)	Indicators used to evaluate work performance
Users	Individual visitors to the website
Session	Represents the set of interactions a user has within a given time frame on the website
Bounce rate	The percentage of customers who visit the website and leave immediately without taking any action
Average Session Duration	The average time users spend on a particular website during a single session.
Page view	The number of views or requests to download a website page on the internet.
Average Time on Page	the average amount of time visitors spend on a single page of a website.
Conversion rate	The number of conversions divided by the total number of visitors.
Top Landing Pages	A list of all your highest traffic landing pages on your website.
Channel-Wise Sessions	A metric that measures the different channels that drive traffic to your website.
Google Ads Analytics	The integration of your Google Ads data with Google Analytics data.
Return on	Marketing metric that measures the effectiveness of an advertising

advertising spend (ROAS)	campaign and its impact on revenue.
Cost per click (CPC)	The amount an advertiser pays each time their ad receives a click.
AOV (Average Order Value)	Average amount of money customers spend per order.
CIM (Computer Integrated Manufacturing)	Designed to interact with equipment and machinery in the manufacturing process.

Table 1: Specialized terms

C. Application of KPIs and Web analytics in E-commerce website: A case study of Google Merchandise Store

I. Overview

1. Introduction

The Google Merchandise Store, often referred to as the Google Store, is an official retail platform where consumers can purchase a wide range of merchandise related to Google and its various products and services.

The Google Merchandise Store not only serves as a place for fans to purchase branded products but also acts as a marketing tool for Google, reinforcing brand loyalty and increasing brand visibility.

The store provides a convenient online shopping experience, allowing customers to browse through different categories, view product details, and make purchases with ease. Additionally, the store often features exclusive or limited-edition items that are not available elsewhere, adding to the appeal for collectors and enthusiasts.

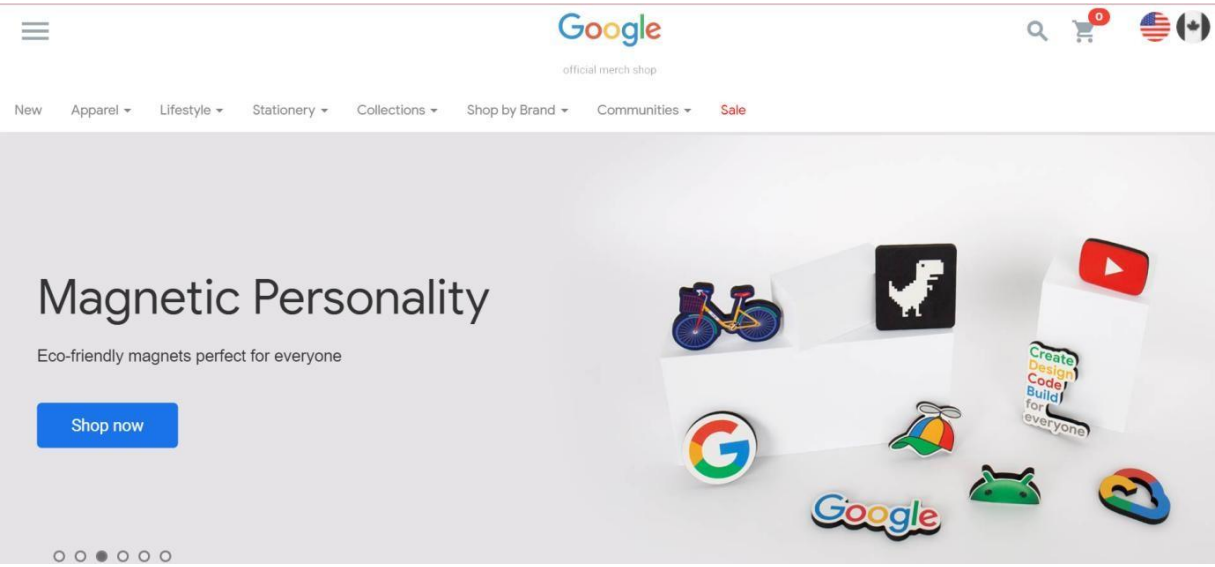


Figure 1: Main interface of Google Merchandise Store (Source: Google Merchandise store)

2. Reason for choosing the company

We choose Google Merchandise Store as the primary research object for this project for a few key reasons. First, the association with Google, one of the leading global technology companies, creates a solid foundation for our research. The evolution of our basic research provides valuable insights into integrating cutting-edge technology into e-commerce practices. This information is important for understanding current industry trends and adopting best practices.

Second, because Google Merchandise Store is a popular e-commerce platform, it generates a significant amount of data related to customer behavior, sales patterns, and website performance. Access to this rich trove of data enables meticulous analysis and provides extremely valuable information about consumer preferences and market dynamics.

Third, Google's trusted status enhances the credibility of research, enhancing its scholarly value. In short, choosing the Google Merchandise Store as a primary research site provides an opportunity to gather important information. Serving as an exemplary research site, its global presence and large footprint in the e-commerce sector make it an ideal candidate to investigate the application of key performance indicators (KPIs) and web analytics in the field of e-commerce.

3. Product offerings

Products available at the Google Merchandise Store include a diverse range of products that satisfy a wide range of interests and serve a wide range of audiences.

Offering a mix of practical items, tech gadgets, fashion accessories, and collectibles - all embody Google's distinctive brand and design aesthetic.

- **Apparel:** The store offers a wide selection of clothing items featuring Google's iconic branding and logos. This includes t-shirts, hoodies, hats, and jackets adorned with Google's recognizable colors and designs.
- **Accessories:** Customers can find an assortment of accessories such as bags, backpacks, wallets, and phone cases featuring Google branding. These accessories often feature stylish designs and durable materials, catering to both fashion and functionality.
- **Tech Gadgets:** The store showcases a range of tech gadgets related to Google's products and services. This may include items such as phone chargers, headphones, and portable speakers designed to complement Google's devices like Pixel smartphones and Nest smart home products.
- **Home Goods:** Google-branded home goods are also available, including items like mugs, water bottles, coasters, and kitchenware. These products often feature sleek designs and high-quality materials, making them suitable for everyday use.
- **Collectibles and Memorabilia:** For enthusiasts and collectors, the Google Merchandise Store offers a selection of collectible items and memorabilia. This may include limited-edition merchandise, commemorative items, and unique collectibles related to Google's milestones and events.
- **Stationery and Office Supplies:** Customers can find stationery items such as notebooks, pens, and desk accessories featuring Google branding. These products are often popular among professionals and students who appreciate functional yet stylish office supplies.
- **Gifts and Novelty Items:** The store also features a range of gift items and novelty products suitable for various occasions. This may include quirky gadgets, novelty keychains, and fun desk decorations inspired by Google's products and services.

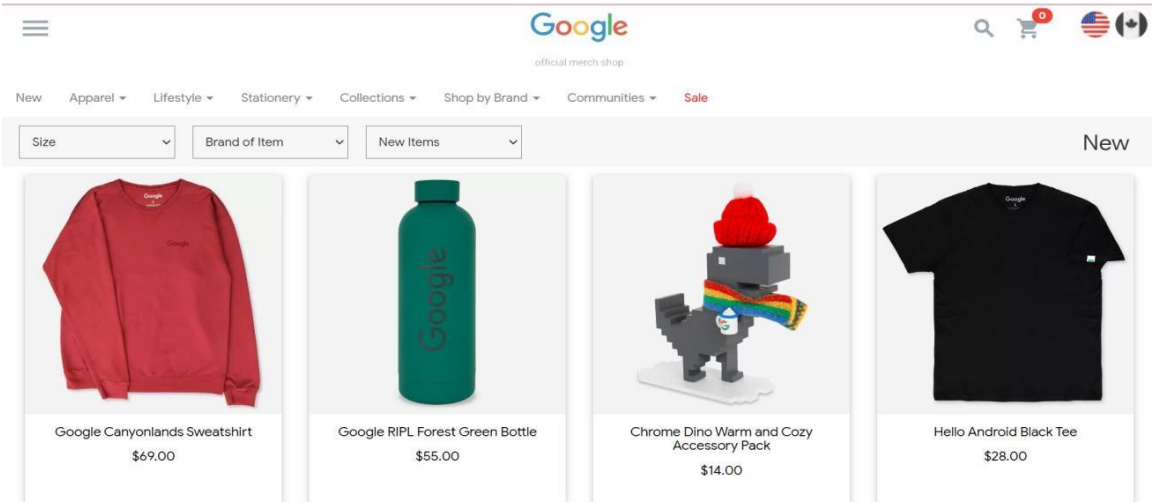


Figure 2: List of product categories of Google Merchandise Store (Source: Google Merchandise store)

4. Customer portrait

Google Merchandise Store targets tech enthusiasts and Google fans, who show loyalty and support through Google-branded products. The store offers a variety of unique and technology-related gifts to suit recipient preferences. Moderate collectors also enjoy owning limited or special Google products, which can be an important part of expanding personal collections. The store caters to both tech enthusiasts and fans, offering a diverse range of products to suit different preferences.

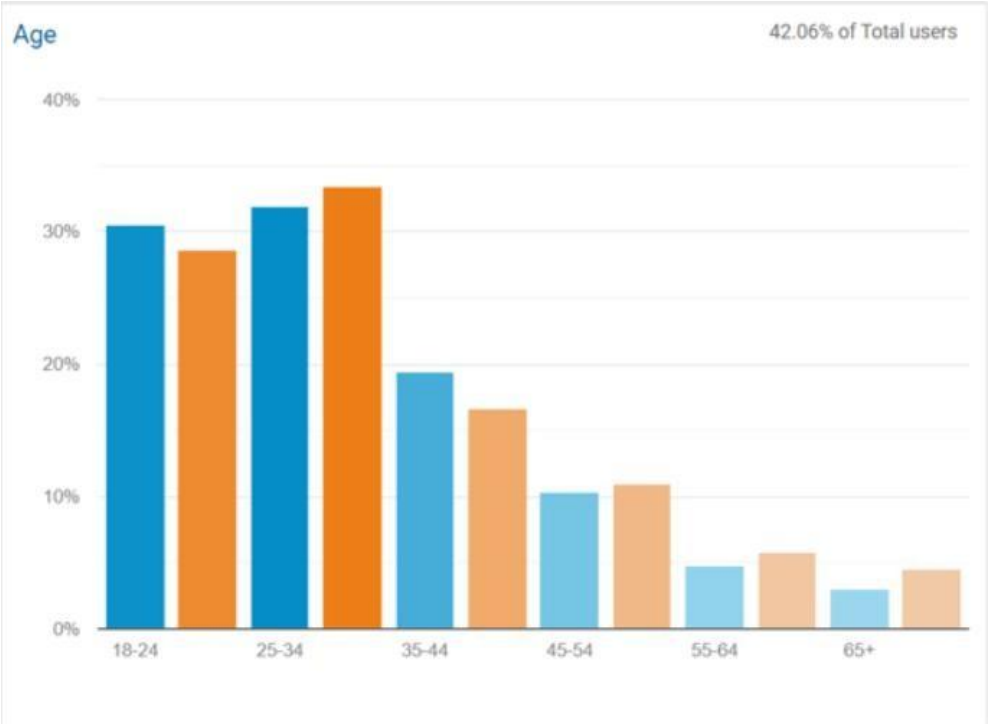


Figure 3:User distribution by age (Source: xiangivyli' survey 2022)

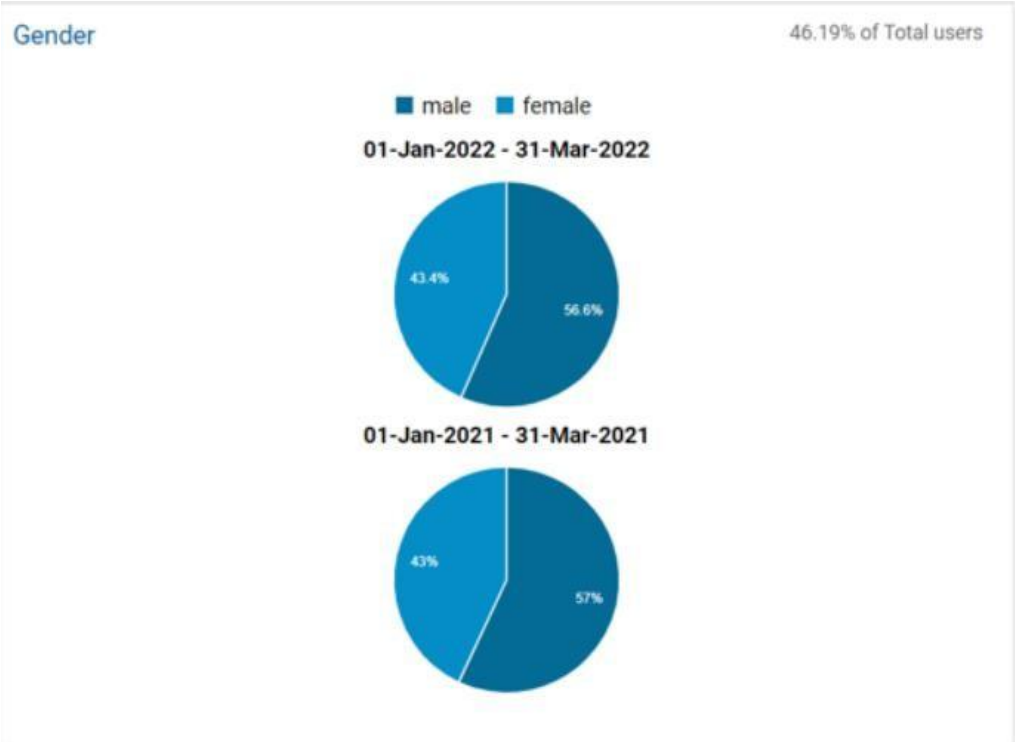


Figure 4:User distribution by gender (Source: xiangivyli' survey 2022)

Based on the results of the survey, we see that groups 18-24 and 25-34 use Google's merchandise store more, and men use the online store a little more often than women. Men make more purchases than women in stores, violating the public consensus that women make up the majority of all purchases.

5. Competitors

Despite its strong brand presence, the Google Merchandise Store faces stiff competition from various e-commerce platforms and retailers offering similar products. These competitors include other tech companies' merchandise stores as well as general e-commerce giants includes :

Amazon: As one of the largest e-commerce platforms globally, Amazon competes directly with the Google Merchandise Store by offering a vast array of products and a seamless shopping experience. With its extensive reach and customer base, Amazon poses a significant challenge in terms of market share and customer acquisition.

Figure 5: Amazon (Source: google)

eBay: Another major player in the e-commerce space, eBay provides a platform for individuals and businesses to buy and sell a wide range of products, including tech merchandise. eBay's auction-style format and diverse product selection attract customers looking for unique deals and bargains.

Figure 6: eBay (Source: google)

Walmart: With its brick-and-mortar stores and expanding online presence, Walmart competes with the Google Merchandise Store by offering a combination of convenience, affordability, and a wide assortment of products. Walmart's omnichannel approach allows customers to shop online or in-store, providing flexibility and choice.

Figure 7: Walmart (Source: google)

Alibaba: As a dominant force in the global e-commerce market, Alibaba operates several online marketplaces catering to different regions and consumer segments. Alibaba's platforms, including Taobao and Tmall, offer a vast selection of products at competitive prices, attracting customers worldwide.

Figure 8: Alibaba (Source: google)

6. SWOT analysis

Strengths	Weaknesses	Opportunities	Threats
1. Robust Analytical Capabilities: Utilizes advanced web analytics tools like Google Analytics to deeply understand consumer behavior and performance metrics such as	**1. Limited data utilization:** the Google Merchandise Store may struggle with fully leveraging the available data to inform strategic decision-making processes . Without fully harnessing	**1. Strategic Enhancement of Marketing Paradigms:** Google Merchandise Store is poised to refine its marketing strategies with surgical precision. Leveraging	**1. Fluctuations in Consumer Trends:** The e-commerce landscape is susceptible to seismic shifts in consumer predilections and technological advancements.

conversion rates and sales revenue.	available data, strategic decision-making suffers. Failure to analyze and interpret data effectively leads to missed opportunities for improving key performance indicators. This hampers the store's agility in responding to evolving market trends and consumer preferences, ultimately leading to suboptimal performance.	sophisticated web analytics and KPIs to refine marketing approaches, including PPC advertising and content marketing, to enhance performance and achieve business goals.	These transformative dynamics imperil the sanctity of Google Merchandise Store's digital ecosystem and pertinent KPIs such as conversion rates and total visits.
2. Data-Driven Decision Making: The store leverages robust web analytics to inform strategic decision-making processes. By closely monitoring KPIs, it	**2. Overreliance on Google-Centric Products:** Limited product diversification impacts crucial KPIs like conversion rates and average order	**2. Incorporating Emerging Technologies:** Google Merchandise Store can harness AI and ML technologies to automate data analysis, detect	**2. Incursion of Competitive Challenges:** The encroachment of rival incumbents poses a potent threat to the market share and operational

can swiftly adapt marketing strategies and optimize user experiences to enhance overall performance and meet business objectives effectively.	values, limiting competitive scope.	customer behavior patterns, and offer personalized marketing recommendations. This proactive approach can boost KPIs and maintain a competitive edge in the evolving e-commerce market.	efficacy of Google Merchandise Store. This necessitates the formulation of astute competitive strategies grounded in rigorous KPI analysis and meticulous web data assimilation.

Table 2: SWOT Analysis of Google Merchandise Store in E-commerce

In conclusion, Google Merchandise Store exhibits strengths in robust analytical capabilities, leveraging advanced web analytics tools to understand consumer behavior and key performance metrics. However, it faces challenges from a competitive landscape and an overreliance on Google-centric products, which impact crucial KPIs like conversion rates and sales revenue. Despite these weaknesses, there are opportunities to refine marketing strategies and offer personalized user experiences to enhance performance and drive business growth.

To mitigate threats and capitalize on opportunities, Google Merchandise Store should continue investing in advanced analytics, diversifying its product offerings, and refining marketing approaches based on data-driven insights. By addressing weaknesses and leveraging strengths effectively, the store can navigate the dynamic e-commerce landscape and achieve sustainable success in the future.

II. Google Merchandise Store data analysis

1. Results and Analysis

1.1 Number of Users and Sessions

1.1.1 Audience overview Report

The Audience Overview report in Google Analytics offers a comprehensive snapshot of the traffic flow to your website within a specified time frame. It provides insights into the number of users and new users who have accessed your site during this period. New Users represent individuals who are visiting your website or app for the first time from a specific device. These are users who have never previously interacted with your site. Conversely, Returning Users are individuals who have revisited your site after their initial visit.

Google Analytics employs a unique identification system to differentiate between new and returning users. Upon visiting your site, each new visitor is assigned a distinct ID, known as a client ID, which is stored in a browser cookie. When a user returns to your site, Google Analytics checks for the presence of this client ID. If the client ID is absent, the user is identified as a new user, and a new client ID is generated for them. Conversely, if the client ID is already present, the user is recognized as a returning user.

This distinction between new and returning users enables you to gauge the effectiveness of your website in attracting and retaining visitors over time. By understanding the composition of your audience, you can tailor your marketing strategies and website content to better engage both new and returning users, ultimately driving sustained growth and success.

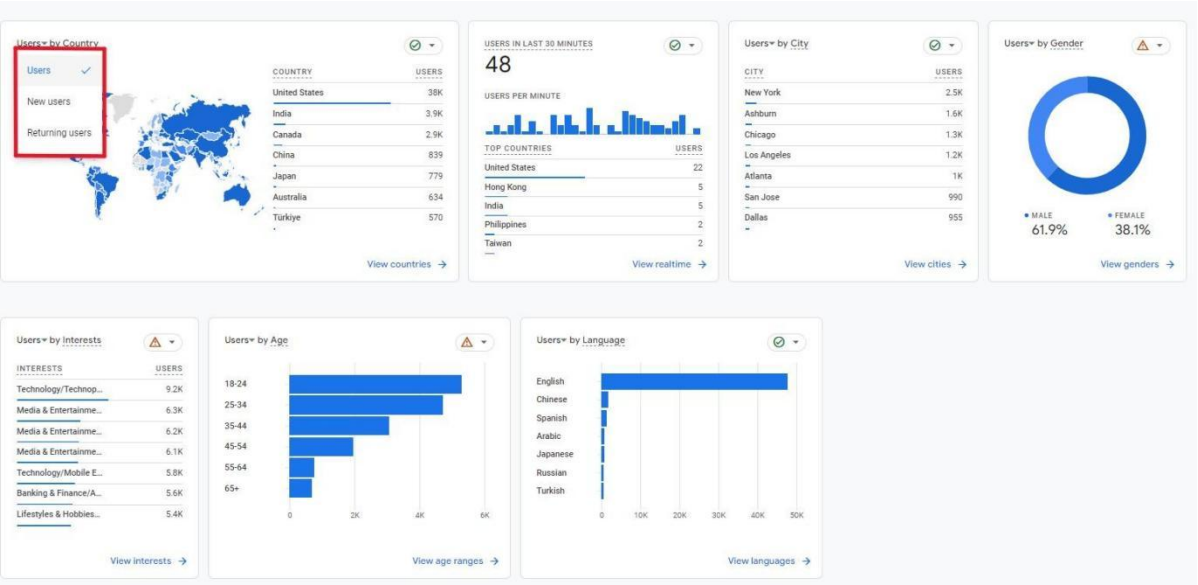


Figure 9: Overview of user attributes (Source: Google Analytics)

1.1.2 Why is measuring Users in Google Analytics important?

Measuring website growth and popularity over time is crucial for assessing the effectiveness of marketing strategies and determining user engagement. Among the various metrics available in Google Analytics, the New User and Returning User metrics are particularly important indicators of website performance.

The New User metric provides valuable insights into the effectiveness of recent marketing initiatives, such as paid advertising campaigns, aimed at acquiring new users. By tracking the number of new users visiting the website within a specific timeframe, businesses can gauge the success of their marketing efforts in attracting fresh audiences. A significant increase in new users following the implementation of a new marketing strategy suggests that the campaign has effectively expanded the website's reach and attracted a broader audience base.

Conversely, the Returning User metric offers insights into user loyalty and the quality of website content. This metric tracks the number of users who revisit the website after their initial visit, indicating their satisfaction with the site's offerings and their likelihood to engage with the brand on a recurring basis. A high number of returning users signals that the website provides valuable content, products, or services that compel users to return for additional interactions. This could include informative

articles, engaging multimedia content, or seamless user experiences that encourage repeat visits.

Overall, monitoring both New User and Returning User metrics provides a comprehensive view of website performance and user engagement. By analyzing trends and patterns in these metrics over time, businesses can identify areas for improvement, refine marketing strategies, and enhance the overall user experience to drive continued growth and popularity for their website.

1.1.3 New User and Returning User

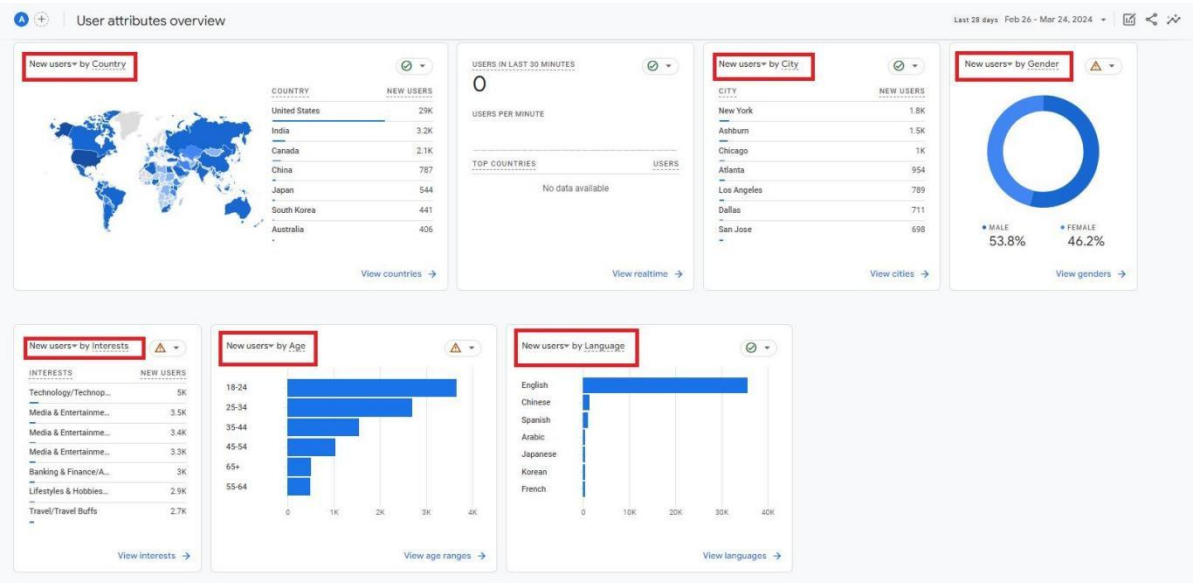


Figure 10: Overview of New users attributes (Source: Google Analytics)

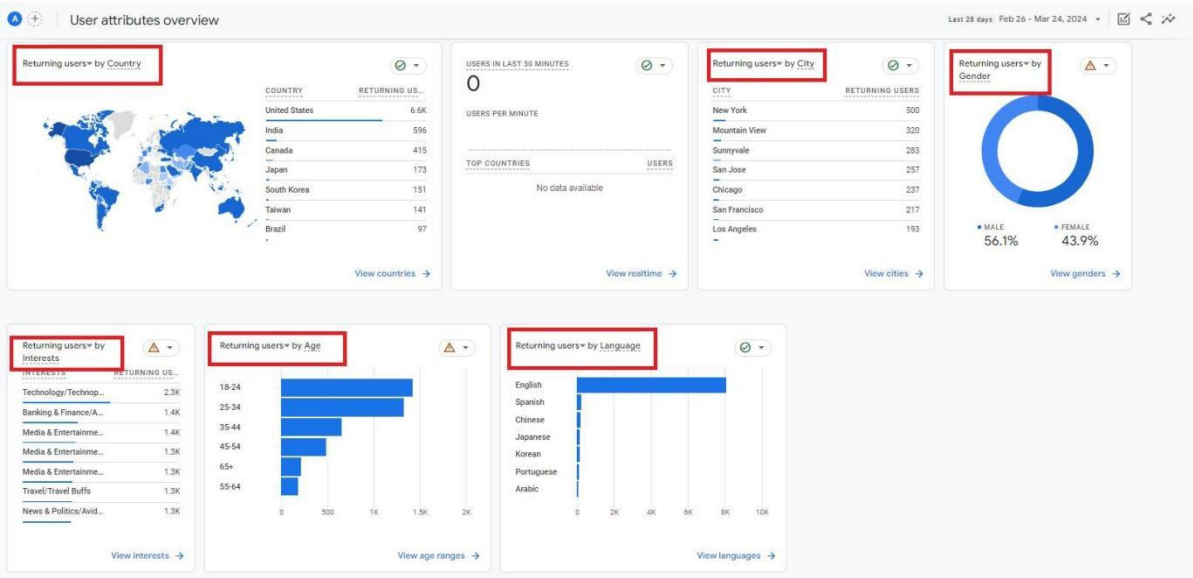


Figure 11: Overview of Returning users attributes (Source: Google Analytics)

Among these metrics, the distinction between New Users and Returning Users is particularly noteworthy.

The New User metric, as tracked in Google Analytics, holds significance in assessing the efficacy of marketing strategies, such as paid advertising campaigns, aimed at acquiring new users. By monitoring the influx of New Users, businesses can evaluate the impact of their promotional efforts and determine the success of targeted acquisition initiatives. Conversely, the Returning User metric provides insights into user engagement and the perceived value of the website's content. A high number of Returning Users suggests that visitors find the website compelling and are inclined to revisit it after their initial interaction. This metric underscores the importance of delivering valuable and engaging content to cultivate user loyalty and foster repeat visits.

In summary, analyzing both New User and Returning User metrics offers valuable insights into the effectiveness of marketing initiatives and the appeal of website content. By leveraging these metrics, businesses can refine their strategies, enhance user experiences, and ultimately drive sustained growth and engagement on their websites.

1.1.4 Demographic details of users

1.1.4.1 Age

Analyzing the age groups of users on the Google Merchandise Store within the context of web data analysis and KPIs plays a vital role in understanding the customer base and developing effective marketing strategies.

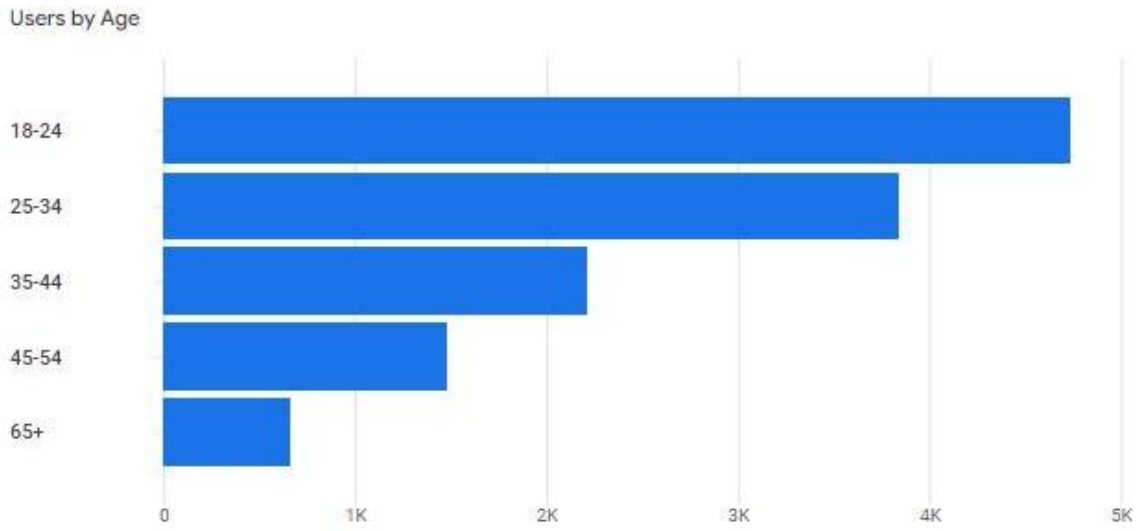


Figure 12: Ages of Users (Source: Google Analytics)

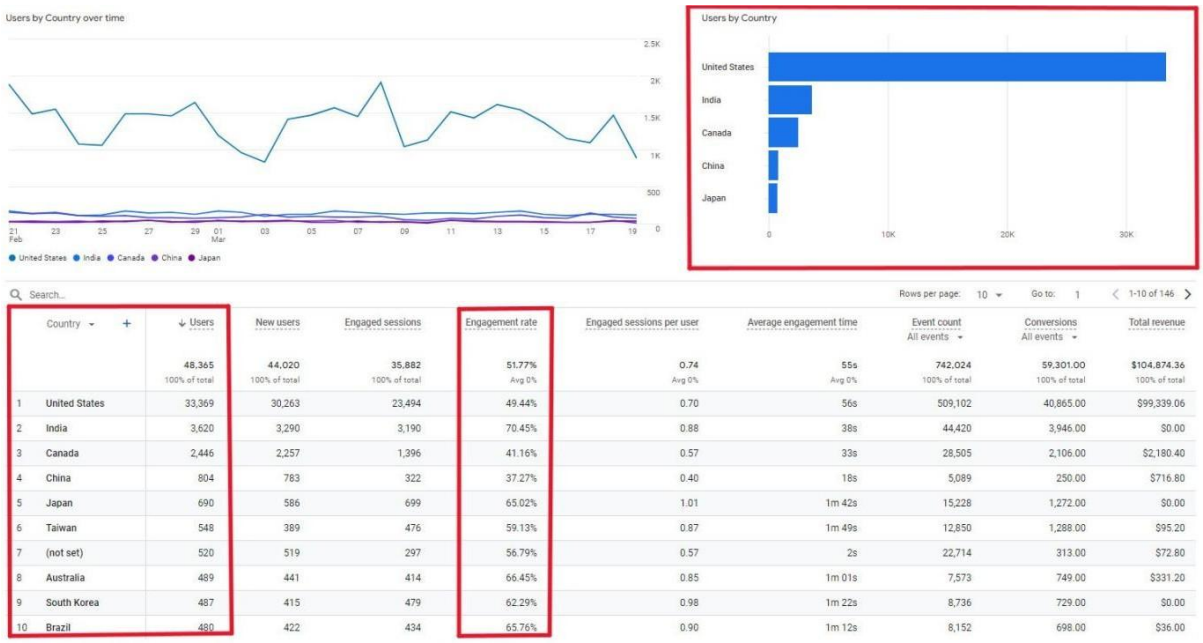
Some analysis on the number of users returning to GOOGLE MERCHANDISE STORE by each age group:

+ Illustrates that the **18-24** and **25-34** groups use the Google merchandise store more
+ Age distribution: The chart shows that the number of returning users is highest in the **18-24** age group, which may indicate that this audience is highly engaged with the content or products on offer.
+ Disparities between groups: There are significant disparities between the **18-24** age group and other age groups, especially compared to the **65+** age group, which may signal an opportunity to increase engagement with other age groups such as the older age group.

Analyzing age demographics allows Google Merchandise Store to tailor marketing strategies effectively. By understanding customer age distribution, personalized campaigns resonate with different age groups, enhancing engagement and retention. Insights from age analysis also optimize website user experience, improving usability and relevance for diverse demographics. This results in higher conversion rates as users find the site more appealing. Ultimately, customized marketing and optimized user experience based on age demographics enhance key performance indicators (KPIs) like conversion rates and customer retention. By meeting diverse demographic needs, Google Merchandise Store strengthens its effectiveness and competitiveness in the online retail market.

1.1.3.2 Country

By capturing information about the country of origin of users, we can implement measures to enhance customer engagement and interaction, thereby optimizing website performance.



	Country	Users	New users	Engaged sessions	Engagement rate	Engaged sessions per user	Average engagement time	Event count All events	Conversions All events	Total revenue
		48,365 100% of total	44,020 100% of total	35,882 100% of total	51.77% Avg 0%	0.74 Avg 0%	55s Avg 0%	742,024 100% of total	59,301.00 100% of total	$104,874.36 100% of total
1	United States	33,369	30,263	23,494	49.44%	0.70	56s	509,102	40,865.00	$99,339.06
2	India	3,620	3,290	3,190	70.45%	0.88	38s	44,420	3,946.00	$0.00
3	Canada	2,446	2,257	1,396	41.16%	0.57	33s	28,505	2,106.00	$2,180.40
4	China	804	783	322	37.27%	0.40	18s	5,089	250.00	$716.80
5	Japan	690	586	699	65.02%	1.01	1m 42s	15,228	1,272.00	$0.00
6	Taiwan	548	389	476	59.13%	0.87	1m 49s	12,850	1,288.00	$95.20
7	(not set)	520	519	297	56.79%	0.57	2s	22,714	313.00	$72.80
8	Australia	489	441	414	66.45%	0.85	1m 01s	7,573	749.00	$331.20
9	South Korea	487	415	479	62.29%	0.98	1m 22s	8,736	729.00	$0.00
10	Brazil	480	422	434	65.76%	0.90	1m 12s	8,152	698.00	$36.00

Figure 13: Country of users (Source: Google Analytics)

Here is the analysis of different user counts:

+ User Counts by Country: **The United States Users** leads with a total of 33,078 users. **India Users** follows with significantly fewer numbers, totaling 3,593 users.

+ Interaction Rate: **India** leads with an interaction rate of 70.53%; **the United States** has a lower rate at 49.61%.

While the United States has the largest user base, other countries such as India and Taiwan demonstrate higher interaction rates or longer interaction times. This indicates that not only the number of new users is important, but also the level of interaction and engagement they have with the content, which should be emphasized in web analytics.

For instance, analyzing product size data on the Google Merchandise Store may reveal differences in size preferences between European and Asian customers. By examining orders from various regions, we might find that Europeans often request larger sizes compared to Asians. For example, while size M could be popular in Europe, Asians may prefer sizes S or XS. This variation could stem from differences in population demographics, clothing habits, or even size standards between regions. Leveraging this information, Google Merchandise Store can adjust its product size offerings and provide more detailed size information for buyers in different regions.

This optimization can enhance shopping experiences, boost customer satisfaction, and improve KPIs such as conversion rates and sales figures.

1.1.3.3 Gender

Gender data provides detailed insights into the purchasing ratio between males and females, thereby helping us understand the customer base better. Additionally, gender analysis can reveal specific shopping trends for each gender, creating opportunities to enhance customer engagement through targeted marketing strategies.

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	Gender	Users	New users	Engaged sessions	Engagement rate	Engaged sessions per user	Average engagement time	Event count All events	Conversions All events	Total revenue
		47,899 100% of total	43,444 100% of total	35,421 100% of total	51.97% Avg 0%	0.74 Avg 0%	55s Avg 0%	739,652 100% of total	59,572.00 100% of total	$105,960.38 100% of total
1	unknown	33,549	31,941	21,269	47.4%	0.63	37s	409,703	29,578.00	$37,144.15
2	male	8,127	6,318	8,356	64.3%	1.03	1m 47s	193,799	18,067.00	$33,291.33
3	female	6,556	5,185	6,067	56.9%	0.93	1m 22s	136,150	11,927.00	$35,524.90

Figure 14: Gender of users (Source: Google Analytics)

Here is the comparison analysis between genders:

+ User Count: **Males** have a count of 8,127 while **females** have 6,556.

+ Interaction Sessions: **Males** have a total of 8,356 interaction sessions, compared to **females** with 6,067 sessions.

+ Sessions per User: On average, each **male user** has 1.03 interaction sessions, whereas **females** have 0.93 sessions.

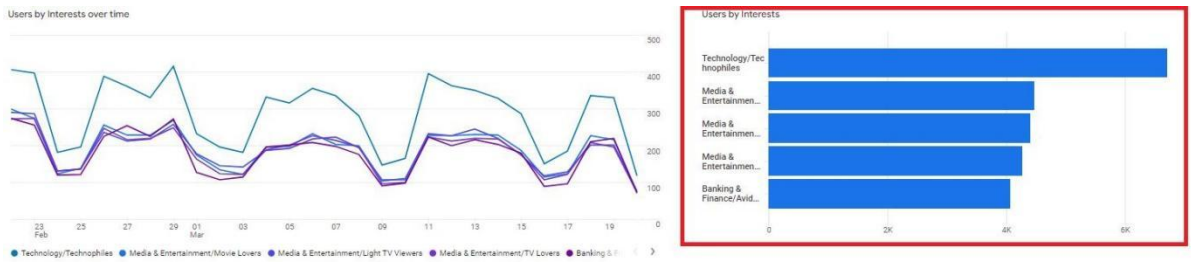
These figures show that although males have a higher interaction rate and sessions per user, the revenue from female users is higher. This may reflect differences in shopping behavior or interest in products and services between genders. This analysis can help marketers and web analysts better understand their target audience and optimize their outreach strategies.

Men tend to use online stores more frequently than women. Men make more purchases than women in the store, violating our agreement that women account for the majority of views and purchases. The reason may be the attractiveness of the

Google brand to men. The first hypothesis should be revised because young men intend to buy more Google-branded products. This insight underscores the importance of revising our marketing strategies to target this demographic effectively, potentially leading to increased sales and improved KPIs.

1.1.3.4 Interest

Through web data analytics, we can collect information about users' activities on the website, including the products they view, the time they spend on the site, and their purchases. Combined with a relevant database of users, we can determine which products and categories attract their interest the most.



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	Interests	Users	New users	Engaged sessions	Engagement rate	Engaged sessions per user	Average engagement time	Event count All events	Conversions All events	Total revenue
		13,184 100% of total	98,189 100% of total	13,096 100% of total	61.67% Avg 0%	0.99 Avg 0%	15m 54s Avg 0%	2,945,213 100% of total	274,014.00 100% of total	$742,265.05 100% of total
1	Technology/Technophiles	6,716	5,028	6,900	65.1%	1.03	1m 53s	165,728	15,375.00	$37,844.01
2	Media & Entertainment/Movie Lovers	4,466	3,533	4,507	64.12%	1.01	1m 45s	102,133	9,512.00	$29,071.00
3	Media & Entertainment/Light TV Viewers	4,411	3,470	4,359	63.78%	0.99	1m 43s	98,503	9,061.00	$23,780.60
4	Media & Entertainment/TV Lovers	4,268	3,387	4,275	64.18%	1.00	1m 44s	97,524	9,100.00	$25,035.60
5	Banking & Finance/Avid Investors	4,074	3,049	4,382	68.03%	1.08	1m 51s	106,636	9,964.00	$25,427.34
6	Lifestyles & Hobbies/Shutterbugs	3,882	3,084	3,871	63.05%	1.00	1m 45s	86,761	7,931.00	$22,285.80
7	Travel/Travel Buffs	3,636	2,748	3,821	66.7%	1.05	1m 54s	95,492	9,206.00	$33,322.14
8	News & Politics/Avid News Readers/Entertainment News Enthusiasts	3,569	2,810	3,585	63.27%	1.00	1m 50s	83,388	7,749.00	$19,538.05
9	Technology/Mobile Enthusiasts	3,499	2,701	3,351	63.85%	0.96	1m 33s	79,407	7,444.00	$11,330.09
10	News & Politics/Avid News Readers/Avid Business News Readers	3,441	2,534	3,719	67.99%	1.08	1m 58s	94,507	8,936.00	$24,896.74

Figure 15: Interest of users (Source: Google Analytics)

User Preferences Over Time:

+ **Technology/Technophiles**: There are a total of 6,716 users, with an average interaction time of 1 minute 53 seconds.

+ **Movie Lovers**: There are a total of 4,466 users, with an average interaction time of 1 minute 45 seconds.

+ **Light TV Viewers**: There are a total of 4,411 users, with an average interaction time of 1 minute 43 seconds.

Detailed Analysis:

+ **Technology/Technophiles** have the highest user count but a relatively low interaction rate, indicating that they may not engage deeply with the content.

+ **Movie Lovers** have the highest interaction rate, indicating a strong interest and engagement with movie-related content.

+ **Light TV Viewers** have lower user count and interaction rate, suggesting they may casually watch TV and engage less.

In summary, analyzing various user preference groups highlights differing levels of interaction and engagement duration, providing crucial insights for web optimization. To improve user interaction and retention, it's essential for web analysts to customize content and strategies according to the specific preferences of each group.

Analyzing user preferences can influence metrics like conversion rate, sales, and customer retention rate. If we understand what our users care about and prefer, we can optimize our marketing and product strategies to enhance the performance and success of our Google Merchandise Store.

1.2 Bounce Rate

The bounce rate serves as a crucial metric for evaluating user engagement and the effectiveness of website content and design. Essentially, the bounce rate indicates the percentage of visitors who land on a website and leave without navigating to other pages within the same site during the same session.

Mathematically, the bounce rate formula is expressed as:

$$\text{Bounce Rate} = \frac{\text{Single page visits (bounces)}}{\text{total number of visits}}$$

Figure 16: The bounce rate formula (Source: Google)

In there:

- **Single page visits (bounces)**: The number of visits in which the user viewed only one page before leaving the website.
- **Total number of visits**: The total number of visits to the website in a certain period of time.

	Audience name	Bounce rate
	Totals	48.23%
1	All Users	48.23%
2	Non-purchasers	48.23%
3	Predicted 28-day top spenders	44.61%
4	Top spenders: Top 5% of users	44.61%
5	Likely 7-day purchasers	42.06%
6	Users in San Francisco	32.08%
7	Engaged Users	32.03%
8	Recently active users	30.21%
9	Purchasers	28.58%
10	Canada Purchasers	26.32%

Figure 17: Bounce Rate of audience name (Source: Google Analytics)

Bounce Rate Overview:

+ Bounce rate for **all users** is 48,23%

+ **Purchasers** have the lowest bounce rate of 28,58%, showing that they tend to interact more with the website.

+ **Non-purchasers** have the highest bounce rate, equal to the overall bounce rate of 47.04%, which may indicate that the user experience may not be engaging enough to keep them.

Analysis by User Segment:

+ **Users in San Francisco** have a bounce rate of 30.08%, which is significantly lower than average, possibly due to local marketing campaigns or site content that is more relevant to this user.

+ **Recently active users** and **Engaged users** have bounce rates of 30.21% and 30.03% respectively, indicating that these users are highly engaged with website.

A high bounce rate suggests that visitors are exiting the website without engaging further, indicating potential issues such as poor content relevance, technical glitches, or a lack of clear calls to action (CTAs) or internal links. Visitors may leave by closing the tab or window, entering new URLs, or following outbound links without interacting with any elements on the website.

A proactive approach to optimizing bounce rates aligns with the strategic objectives of the Google Merchandise Store, enabling it to enhance user retention, drive conversions, and maintain a competitive edge in the e-commerce landscape. Through ongoing analysis and optimization of bounce rate metrics, the store can continually refine its website to better meet the needs and preferences of its target audience, ultimately leading to improved performance and success in the online marketplace.

1.3 Average Session Duration

Average session duration refers to the average time users spend on a particular website during a single session. It is typically calculated by dividing the total duration of all sessions by the number of sessions during a specific period.

$$Average\ Sessions\ Duration = \frac{Total\ Sessions\ Duration}{Total\ Sessions}$$

Figure 18: Average session duration formula (Source: Google)

According to data recorded by Merchandise, in the past 28 days, starting from February 20, 2024, the average session duration is 12m 40s.

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	Audience name	Users	New users	Sessions	Views per session	Average session duration	Total revenue
		51,607 100% of total	123,177 100% of total	72,009 100% of total	11.60 Avg 0%	12m 40s Avg 0%	$534,902.11 100% of total
1	All Users	51,607	46,862	72,009	2.91	3m 08s	$106,036.11
2	Non-purchasers	51,607	46,862	72,009	2.91	3m 07s	$2,750.60
3	Recently active users	28,330	23,109	40,928	4.09	4m 28s	$105,958.51
4	Engaged Users	10,059	5,741	20,791	6.41	6m 44s	$105,106.91
5	Added to cart & no purchase	3,878	18	6,702	7.04	7m 19s	$137.60
6	Likely 7-day purchasers	2,198	62	6,936	3.98	5m 03s	$46,361.31
7	Predicted 28-day top spenders	1,288	39	3,742	4.10	5m 38s	$26,974.72
8	Top spenders: Top 5% of users	1,288	39	3,742	4.10	5m 38s	$26,974.72
9	Purchasers	793	1	1,414	3.01	4m 43s	$106,036.11
10	Users in San Francisco	684	444	1,162	4.57	4m 27s	$6,385.12

Figure 19: Average session duration of Merchandise store (Source: Google Analytics)

All users are 51607 of which 46862 are new users, the average session duration is 3m 08s. For an online platform that sells clothes, accessories, and office supplies like Merchandise, overall, this visit time is quite good.

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Figure 20: Average number of sessions for all users (Source: Google Analytics)

If the average session duration of non-purchasers is 3m07s, then purchasers are 4m43s. Although these are all quite good durations, showing that the website has performed very well in attracting users, the number of non-purchasers is also quite high, especially the average session duration of customers who added to cart but did not make a purchase is 7m19s, accounting for the highest time in the statistics table. We need to find out the cause as well as promote some more campaigns to increase the number of purchases and sales of products.

Search... Rows per page: 10 Go to: 1 1-10 of 11

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10	Users in San Francisco	684	444	1,162	4.57	4m 27s	$6,385.12

Figure 21: Average number of sessions for non-purchasers, added to cart & no purchase, purchasers (Source: Google Analytics)

Users in Francisco recorded an average session duration of 4m27s. A quite impressive number in the report. Merchandise can focus on this customer group to increase purchases.

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	Audience name	Users	New users	Sessions	Views per session	Average session duration	Total revenue
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5	Added to cart & no purchase	3,878	18	6,702	7.04	7m 19s	$137.60
6	Likely 7-day purchasers	2,198	62	6,936	3.98	5m 03s	$46,361.31
7	Predicted 28-day top spenders	1,288	39	3,742	4.10	5m 38s	$26,974.72
8	Top spenders: Top 5% of users	1,288	39	3,742	4.10	5m 38s	$26,974.72
9	Purchasers	793	1	1,414	3.01	4m 43s	$106,036.11
10	Users in San Francisco	684	444	1,162	4.57	4m 27s	$6,385.12

Figure 22: Average number of sessions for Users in San Francisco (Source: Google Analytics)

The average session duration of engaged users is 6 minutes and 44 seconds. This is also a good number. That shows that the website has done a very good job in attracting user attention and interaction.

Search... Rows per page: 10 Go to: 1 1-10 of 11

	Audience name	Users	New users	Sessions	Views per session	Average session duration	Total revenue
		51,607 100% of total	123,177 100% of total	72,009 100% of total	11.60 Avg 0%	12m 40s Avg 0%	$534,902.11 100% of total
1	All Users	51,607	46,862	72,009	2.91	3m 08s	$106,036.11
2	Non-purchasers	51,607	46,862	72,009	2.91	3m 07s	$2,750.60
3	Recently active users	28,330	23,109	40,928	4.09	4m 28s	$105,958.51
4	Engaged Users	10,059	5,741	20,791	6.41	6m 44s	$105,106.91
5	Added to cart & no purchase	3,878	18	6,702	7.04	7m 19s	$137.60
6	Likely 7-day purchasers	2,198	62	6,936	3.98	5m 03s	$46,361.31
7	Predicted 28-day top spenders	1,288	39	3,742	4.10	5m 38s	$26,974.72
8	Top spenders: Top 5% of users	1,288	39	3,742	4.10	5m 38s	$26,974.72
9	Purchasers	793	1	1,414	3.01	4m 43s	$106,036.11
10	Users in San Francisco	684	444	1,162	4.57	4m 27s	$6,385.12

Figure 23: Average number of sessions for Engaged Users (Source: Google Analytics)

Recently active users recorded the average session duration is 4m28s . Likely 7-day purchases is 5m03s. Predicted 28 day top spends continued to increase with 5m 38s. It can be seen that merchandise campaigns and activities are going extremely smoothly. That is also shown by top spenders: top 5% of users with an average session duration of 5m38s.

Search... Rows per page: 10 Go to: 1 1-10 of 11

	Audience name	Users	New users	Sessions	Views per session	Average session duration	Total revenue
		51,607 100% of total	123,177 100% of total	72,009 100% of total	11.60 Avg 0%	12m 40s Avg 0%	$534,902.11 100% of total
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2	Non-purchasers	51,607	46,862	72,009	2.91	3m 07s	$2,750.60
3	Recently active users	28,330	23,109	40,928	4.09	4m 28s	$105,958.51
4	Engaged Users	10,059	5,741	20,791	6.41	6m 44s	$105,106.91
5	Added to cart & no purchase	3,878	18	6,702	7.04	7m 19s	$137.60
6	Likely 7-day purchasers	2,198	62	6,936	3.98	5m 03s	$46,361.31
7	Predicted 28-day top spenders	1,288	39	3,742	4.10	5m 38s	$26,974.72
8	Top spenders: Top 5% of users	1,288	39	3,742	4.10	5m 38s	$26,974.72
9	Purchasers	793	1	1,414	3.01	4m 43s	$106,036.11
10	Users in San Francisco	684	444	1,162	4.57	4m 27s	$6,385.12

Figure 24: Average number of sessions for Recently active users, Likely 7-day purchases, Predicted 28 day top spenders, Top spenders: Top 5% of users (Source: Google Analytics)

Through the data table, it can be seen that the website has a good average session duration index. This proves that Merchandise has been very successful in building websites as well as implementing good campaigns to attract users. It is necessary to continue to promote and expand more utilities and attractive content to increase traffic, interaction and product purchases.

1.4 Ratio of New to Returning Visitors/Percentage of New Sessions

1.4.1 New users

According to Google Analytics, New Users is an indicator of the number of users accessing the website for the first time during the selected time period.

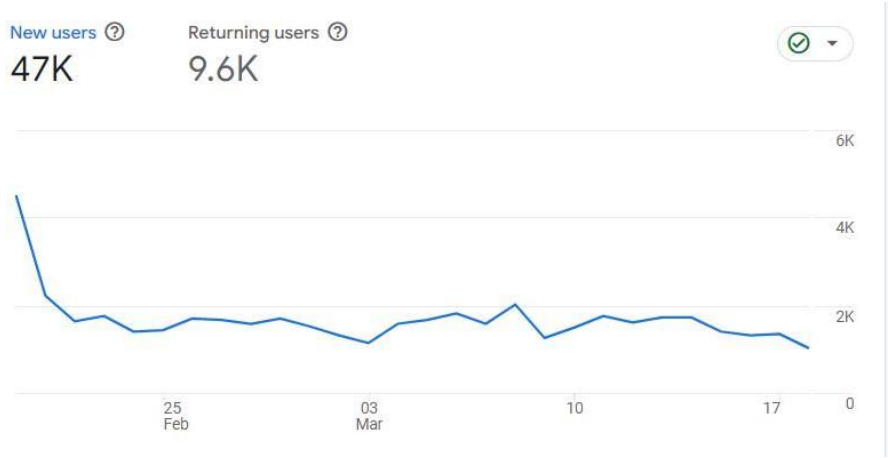

Figure 25: Number of new users of Merchandise (Source: Google Analytics)

According to the Merchandise new users chart from February 20, 2024 to March 18, 2024, there are a total of 47 thousand new users. The number of new users is the largest, peaking on February 20, 2024 with 4,511 people.

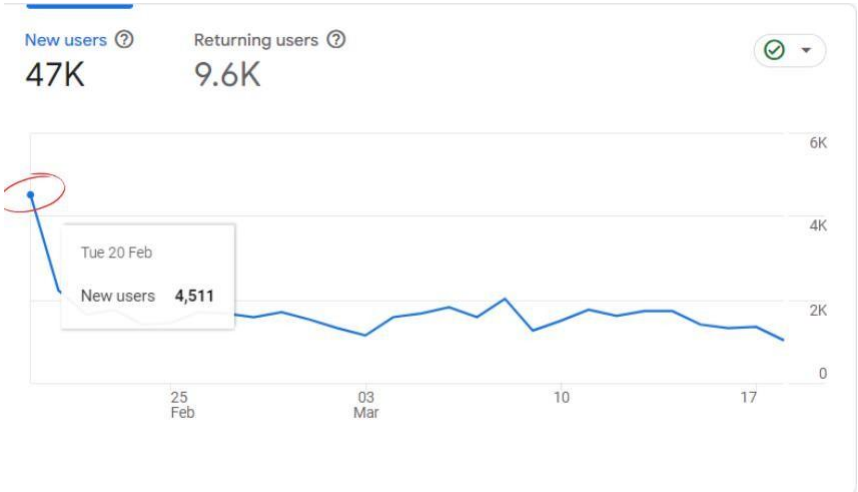

Figure 26: The highest number of new users was on February 20, 2024 (Source: Google Analytics)

However, the number decreased rapidly, to 2,291 people (recorded 2,220 people on February 21, 2024). After that, the number of new users began to decrease more slowly, with 1640 users on February 22, 2024, and began to increase again on February 23, 2024 with 1754 users.

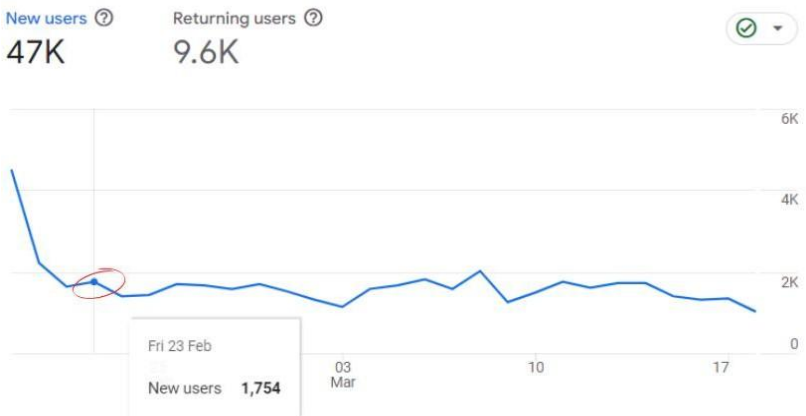

Figure 27: Number of new users on February 23, 2024 (Source: Google Analytics)

The chart continues to have insignificant decreases and increases. According to records, on February 25, 2024, there were 1,433 new users, and on March 3, 2024,

there were 1,149 people. On March 18, 2024, the number of users reached the lowest number in the chart with 1019 people.

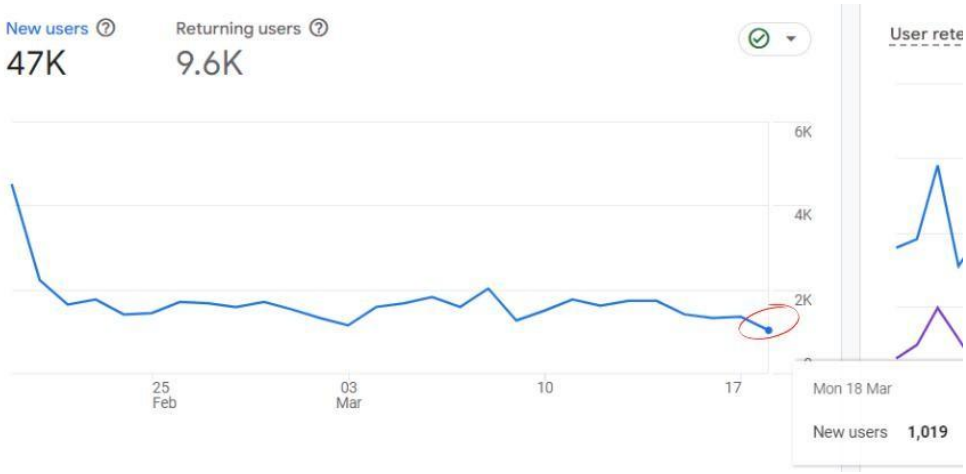

Figure 28: The lowest number of new users was on March 18, 2024 (Source: Google Analytics)

Overall, within 29 days, the number of new users decreased, from 4,511 to 1,019. It can be seen that the number of potential customers is decreasing, it is necessary to set goals and strategies to increase the number of new users accessing the website.

1.4.2 Returning users

Returning Visitors are people who return to your website after they have visited once before.

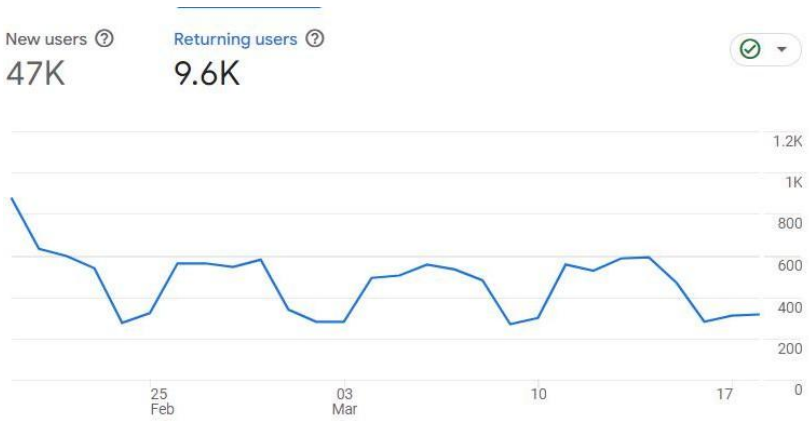

Figure 29: Number of returning users of Merchandise (Source: Google Analytics)

Statistics on returning users from February 20, 2024 to March 18, 2024 show that there are a total of 9.6 thousand Returning users. The highest number of returning users is 876 people on February 20, 2024.

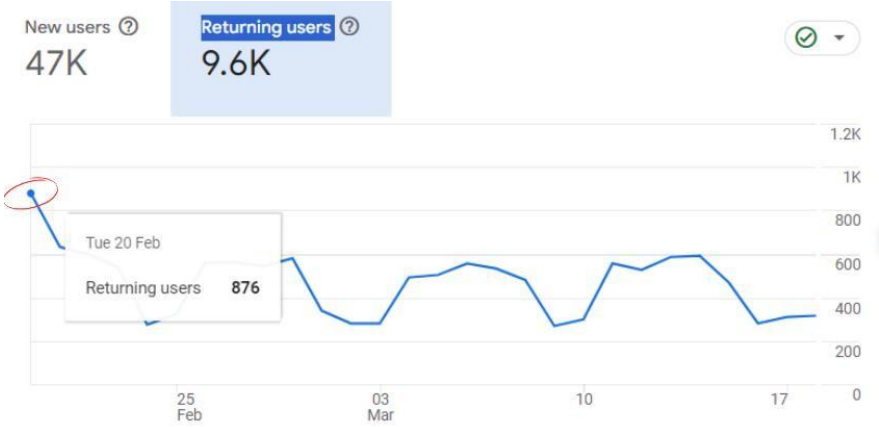

Figure 30: The highest number of returning users was on February 20, 2024 (Source: Google Analytics)

After that, the number of Returning users decreased until February 24, 2024 (reaching 278 people), then began to increase.

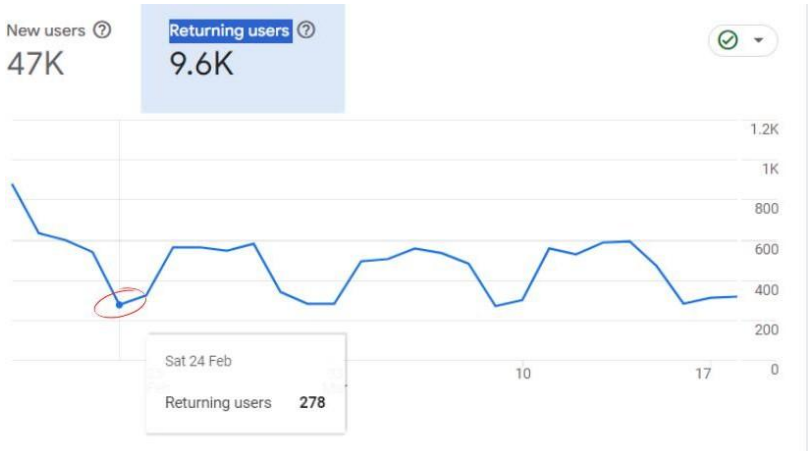

Figure 31: Number of returning users on February 24, 2024 (Source: Google Analytics)

From February 24, 2024 to March 18, 2024, the number of returning users ranges from over 200 to 600 people. March 9, 2024 recorded returning users at the lowest level of 272 people.

Figure 32: The lowest number of returning users was on March 09, 2024 (Source: Google Analytics)

Then, increase to 298 people on March 10, 2024. Finally, on March 18, 2024, 317 people were recorded.

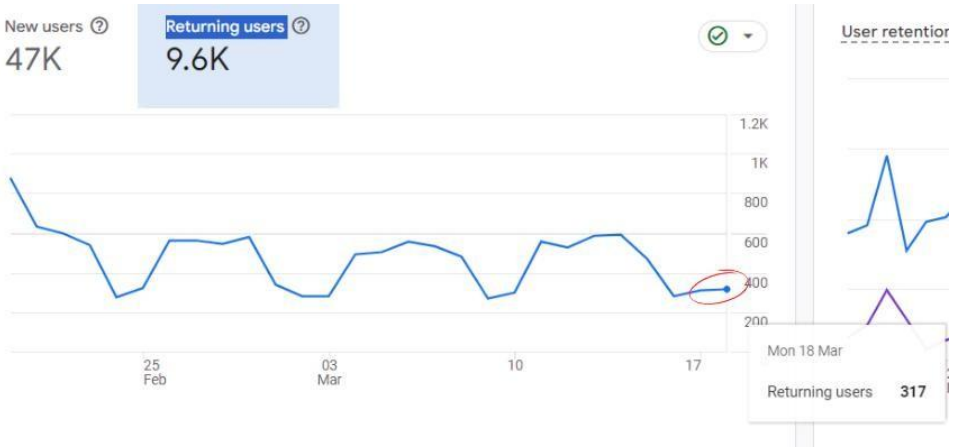

Figure 33: Number of returning users on March 18, 2024 (Source: Google Analytics)

From February 20, 2024 to March 18, 2024, the number of returning users decreased from 876 people to 317 people. That shows that the content on the website no longer attracts users, causing them to not like it and come back. Therefore, we need to invest and improve website content to make it interesting and attractive to users, to increase the rate of customers returning and buying products.

→ Thus, it can be seen that the number of new customers is larger than the number of returning customers, which may indicate that branding campaigns are still not successful. Need to set more specific and attractive goals and strategies to keep customers coming back.

1.5 Pageviews/Pageviews by Page

1.5.1 Pageviews

Search... Rows per page: 10 Go to: 1 1-10 of 1212

	Page title and screen class	Views	Users	Views per user	Average engagement time	Event count All events	Conversions All events
		209,858 100% of total	51,607 100% of total	4.07 Avg 0%	54s Avg 0%	780,082 100% of total	65,285.00 100% of total
1	Stationery | Google Merch Shop	41,991	21,546	1.95	2s	132,463	0.00
2	Shopping Cart	11,766	3,581	3.29	37s	37,615	312.00
3	Men's / Unisex | Apparel | Google Merch Shop	9,956	4,547	2.19	1m 03s	33,202	0.00
4	New | Google Merch Shop	8,068	4,652	1.73	42s	27,536	0.00
5	Sale | Google Merch Shop	6,715	4,257	1.58	21s	22,149	0.00
6	Apparel | Google Merch Shop	6,209	3,425	1.81	43s	21,312	14.00
7	(not set)	6,131	28,055	0.22	1s	99,931	185.00
8	Bags | Lifestyle | Google Merch Shop	4,519	3,156	1.43	17s	16,007	0.00
9	Drinkware | Lifestyle | Google Merch Shop	4,482	2,880	1.56	28s	15,634	0.00
10	Womens | Apparel | Google Merch Shop	3,446	1,824	1.89	37s	11,444	0.00

Figure 34: Views page title and screen class of Merchandise store (Source: Google Analytics)

Based on the data from the provided images, we can draw the following conclusions:

- Page "Stationery | Google Merch Shop" has the highest number of views with 41,991 views. This is a page containing stationery products.
- Page "Womens | Apparel | Google Merch Shop" has the lowest number of views with 3,446 views. It can be seen that customers have quite low interest in this page:
- The "Shopping Cart" page has 11,766 views, this is probably the shopping cart page.
- Page "Men's / Unisex | Apparel | Google Merch Shop" has 9,956 views.
- Page "New | Google Merch Shop" has 8,068 views.
- The "Sale I Google Merch Shop" page has 6,715 views.
- The "Apparel I Google Merch Shop" page has 6,209 views.
- The "(not set)" page has 6,131 views.
- The page "Bags IN Lifestyle I Google Merch Shop" has 4,519 views.
- The page "Drinkware I Lifestyle I Google Merch Shop" has 4,482 views.

The total number of views is 209,858. Among the pages, "Stationery | Google Merch Shop" received the most attention, while "Womens | Apparel | Google Mech shop" had the least interest.

Information about the number of views on Google Merchandise store sites can provide an overview of user performance and interest in each product category. Based on this data, your Google Merchandise store's KPIs (Key Performance Indicators - Key Performance Indicators) may be affected as follows:

Conversion rate: The " Stationery" and "Shopping Cart" page has the high number of views. This may suggest that there are many customers who are actively purchasing. However, the "Women | Outfits" page has the lowest number of views, indicating little interest from customers. This can lead to low conversion rates for women's/girls' decorative products.

Sales Revenue: Based on the number of views and information about the pages, we can estimate sales by each category. The "Stationery" page may result in the most sales, while the "Women | Apparel" page may result in fewer sales.

Bounce Rate: Pages with a low number of views like "Women | Outfits" may have a high bounce rate, suggesting that users are not interested or cannot find the content they want on that page.

1.5.2 View per user

Search... Rows per page: 10 Go to: 1 1-10 of 1212

	Page title and screen class	Views	Users	Views per user	Average engagement time	Event count All events	Conversions All events
		209,858 100% of total	51,607 100% of total	4.07 Avg 0%	54s Avg 0%	780,082 100% of total	65,285.00 100% of total
1	Stationery | Google Merch Shop	41,991	21,546	1.95	2s	132,463	0.00
2	Shopping Cart	11,766	3,581	3.29	37s	37,615	312.00
3	Men's / Unisex | Apparel | Google Merch Shop	9,956	4,547	2.19	1m 03s	33,202	0.00
4	New | Google Merch Shop	8,068	4,652	1.73	42s	27,536	0.00
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7	(not set)	6,131	28,055	0.22	1s	99,931	185.00
8	Bags | Lifestyle | Google Merch Shop	4,519	3,156	1.43	17s	16,007	0.00
9	Drinkware | Lifestyle | Google Merch Shop	4,482	2,880	1.56	28s	15,634	0.00
10	Womens | Apparel | Google Merch Shop	3,446	1,824	1.89	37s	11,444	0.00

Figure 35: Views per user of Merchandise store (Source: Google Analytics)

The page with the highest number of views per user is ‘Shopping cart’ with 3.29 views per user. This may indicate that this page has engaging content or may be the main page of the website.

The page with the lowest number of views per user is 'not set”' with just 0.22 views per user. This may suggest that many users are not completing their shopping process or are having problems with the site.

1.6 Average Time on Page

Search... Rows per page: 10 Go to: 1 1 10 of 1212

	Page title and screen class	Views	Users	Views per user	Average engagement time	Event count All events	Conversions All events
		209,858 100% of total	51,607 100% of total	4.07 Avg 0%	54s Avg 0%	780,082 100% of total	65,285.00 100% of total
1	Stationery | Google Merch Shop	41,991	21,546	1.95	2s	132,463	0.00
2	Shopping Cart	11,766	3,581	3.29	37s	37,615	312.00
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9	Drinkware | Lifestyle | Google Merch Shop	4,482	2,880	1.56	28s	15,634	0.00
10	Womens | Apparel | Google Merch Shop	3,446	1,824	1.89	37s	11,444	0.00

Figure 36: Average engagement time of Merchandise store (Source: GG Analytics)

- Page “Stationery | Google Merch Shop” has average engagement time 2s
- Page “Womens | Apparel | Google Merch Shop” has an average engagement time of 37s
- The “Shopping Cart” has average engagement time 37s
- Page “Men / Unisex | Costumes | Google Merch Shop” has the highest average engagement time 1m03s.
- Page “New | Google Merch Shop” has average engagement time 42s
- The “Sale I Google Merch Shop” has an average engagement time of 21s.
- The “Apparel I Google Merch Shop” page has an average engagement time of 43s.

- The “(not set)” page has the lowest average engagement time 1s..
- The page “Bags IN Lifestyle I Google Merch Shop” has an average engagement time of 17s.
- The page “Drinkware I Lifestyle I Google Merch Shop” has an average engagement time of 28s.

Based on the average interaction time of pages, we can divide them into 3 groups as follows:

- Group of pages with the highest average engagement time:

"Men / Unisex | Costumes": 1m03s

"Apparel": 43s

"New": 42s

~ Pages in this group have longer engagement times, showing that users are interested and spend more time browsing and exploring products. This can lead to enhanced sales, increased conversion rates, and improved user experience.

- Group of pages with high average engagement time:

"Womens | Apparel": 37s

"Shopping Cart": 37s

~ Although engagement times are not as high as the highest group, pages in this group still attract user interest. This can lead to increased sales and increased conversion rates.

- Group of pages with the lowest average engagement time:

"Sale": 21s

"Drinkware": 28s

"Bags": 17s

"(not set)": 1s

~ Pages in this group have low engagement times, which may indicate that they fail to attract user interest or provide unengaging content. This can cause decreased sales, low conversion rates, and high abandonment rates.

1.7 Conversion rate

The conversion rate is a metric used in web analytics to measure the effectiveness of a website or marketing campaign in converting visitors into desired actions, such as making a purchase, adding to cart, or viewing an item. It is typically calculated as the percentage of visitors who complete a desired action out of the total number of visitors to the website or the total number of users who were exposed to a particular marketing campaign.

The formula to calculate conversion rate is:

$$\text{Conversion Rate} = \left(\frac{\text{Number of Conversions}}{\text{Number of Visitors}}\right) \times 100\%$$

Figure 37: The conversion rate formula

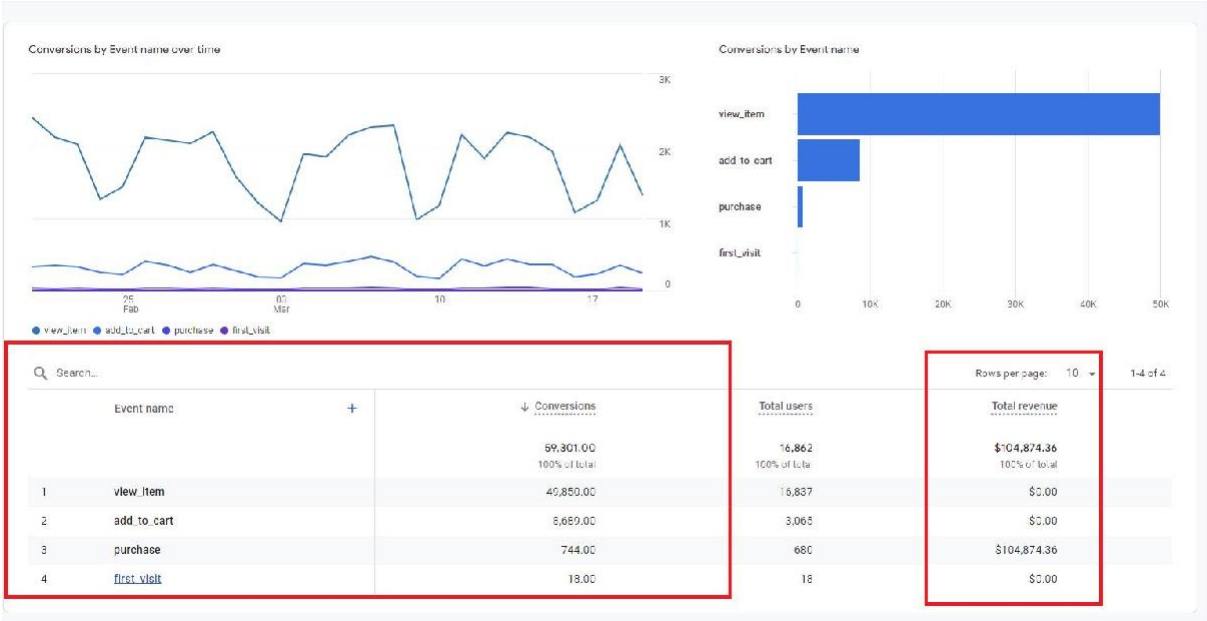

Figure 38: Conversion rate of Merchandise store (Source: Google Analytics)

View_item: With 49850 conversions and $0 revenue from these conversions, it may appear that although users are interested in the product, they may not complete the

transaction. This could be due to many reasons such as lack of product appeal, inappropriate pricing or a bad online shopping experience.

~ Conversion rate = 0.34

~ Businesses optimize product pages to increase product appeal, ensuring product information is clear, attractive and easy to understand. Re-evaluate pricing strategy to ensure product absorption and competitiveness

Add_to_cart: Despite 8689 conversions, no revenue was generated from this job. This could imply that there was a problem during the checkout process or that a large portion of users abandoned their carts before completing the transaction.

~ Conversion rate = 0.35

~ Create a convenient and easy payment experience for users. Eliminate unnecessary checkout steps and reduce friction in the checkout process. Ensure that prices and related costs (shipping fees, taxes...) are clearly displayed before users make payment. Allow users to save their cart so they can return and complete the transaction later without losing the selected products. Encourage users to complete transactions by offering special offers or promotions when they make a purchase

Purchase: With 744 conversions and revenue of $10,487,436, this is the final step in the purchasing process and generates a significant amount of revenue. However, the number of conversions is not high, but the revenue from these transactions shows that some users actually made purchases and completed transactions.

~ Conversion rate = 0.91

~ Continue to optimize the checkout page to create a smooth and easy shopping experience. Build a compelling marketing strategy to increase leads and increase sales. And show reviews and ratings from previous customers to build trust and increase purchase likelihood. Offer flexible return or refund policies to reduce buyer risk.

First_visit: With only 18 conversions and no revenue, this could be a sign that user experience improvements or marketing strategies need to be improved to keep customers coming back after the first visit.

~ Conversion rate = 1

~ Improve your website's user experience to create a positive impression from the first visit. At the same time, use digital marketing and content marketing strategies to attract and retain customers.

With 59,301 Total Conversion and Total Users: 16,862

~ Total Conversion Rate = 3,5

1.8 Top Landing Pages

- The Landing Pages report in Google Analytics shows a list of all your highest traffic landing pages on your website. This report is really useful for search engine marketing because it shows important data including sessions, bounce rates, pages per session and more. In fact it can be used for both SEO and search engine PPC since these styles of marketing both rely on tracking landing pages in Google Analytics to understand performance. In addition to having this data broken down by individual pages, you also have a graph that shows your overall traffic for a selected date range and different segments or filters you can use to really focus on the data that's important to you.
- The data in the Landing Pages Report can help your business answer a number of questions about the performance of your site. Because landing pages are the first experience a visitor has on your site, paying attention to this section is vital for your SEM efforts.
- If you can optimize these pages for inbound marketing – you can use them to even further increase traffic to your site.
- The Landing Pages Report can tell you how well your marketing is doing, what the user is interested in, where they came to your site from (SERPs, social media, internet ads, etc.), and give you insight on their behavior. It can also supplement any data you get from 3rd party PPC ad networks.

	Landing page	+	Session	User	Number of new users	Average interaction time/session
			69,313 100% in total	48,365 100% in total	44,020 100% in total	38 seconds Average 0%
1	(not set)		30.101	25.077	7	0 giây
2	/Google+Redesign/Stationery		28.838	20.620	20.547	1 giây
3	/Google+Redesign/New		2.654	2.096	1.264	1 phút 30 giây
4	/Google+Redesign/Apparel/Mens		2.341	2.034	1.288	1 phút 43 giây
5	/Google+Redesign/Apparel		2.105	1.881	1.452	1 phút 20 giây
6	/Google+Redesign/Android+Classic+Collectible		1.878	1.485	1.298	26 giây
7	/Google+Redesign/Clearance		1.488	1.310	730	1 phút 49 giây
8	/Google+Redesign/Lifestyle/Bags		1.457	1.341	1.018	56 giây
9	/Google+Redesign/Shop+by+Brand/YouTube		1.396	1.324	1.182	46 giây
10			1.327	956	0	7 giây
11	/Google+Redesign/Lifestyle/Drinkware		1.270	1.165	823	1 phút 23 giây
12	/basket.html		1.214	985	456	1 phút 21 giây

Figure 39: Top Landing Page of Merchandise store (Source: Google Analytics)

- Average Session Duration provides the highest amount of time a user spends on your website. For example, if two users visit the same page, one spends 3 minutes and the other 1 minute, then the average duration will be 2 minutes.
- Looking at the picture we can see that each landing page has a different average interaction time/session. For instance, landing page number 2 and landing page number 4 have an average interaction time/session of 1 second and 1 minute 43 seconds respectively. proves that landing page number 4 has a higher average interaction time/session than landing page number 2. This proves that the 4th website has something more outstanding than the 2nd website. It could be due to the interface. The interface is easier to see, either because the colors are more beautiful, or the content is suitable for users....

=> Understanding how to use and operate a landing page will make it easier for customers to find your website. From there, increasing web traffic while helping promote businesses' marketing and advertising activities to consumers.

- Methods to improve Top Landing Page metrics:
    + Make sure your top landing pages have a clear and concise call-to-action (CTA) that encourages visitors to explore the rest of your website.

+ Optimize your landing pages for speed and mobile responsiveness.
+ Use A/B testing to experiment with different page designs and layouts to see what resonates best with visitors.
+ Consider incorporating elements like high-quality images, videos, and interactive features to keep visitors engaged.
+ Regularly evaluate your top landing pages and make necessary updates and improvements to maintain their relevance and effectiveness.

1.9 Channel-Wise Sessions/Sources of Traffic

- Channel-Wise Sessions, also known as Sources of Traffic, is a metric that measures the different channels that drive traffic to your website.
- Direct traffic, organic search traffic, referral traffic, social media traffic, and paid advertising are commonly available channels.

	Main channel group...default channel)	User	Session	Number of interactive sessions	Average interaction time/session	Number of interactive sessions per user	Number of events per session
		46,263 100% in total	66,133 100% in total	33,956 100% in total	38 seconds Average 0%	0.73 Average 0%	10.67 Average 0%
1	Direct	33.949	46.048	22.525	34 giây	0,66	9,77
2	Organic Search	9.347	12.056	9.031	40 giây	0,97	10,60
3	Unassigned	3.147	3.038	0	1 phút 20 giây	0,00	26,81
4	Referral	978	1.417	722	32 giây	0,74	9,33
5	Paid Search	685	3.374	833	2 giây	1,22	3,95
6	Organic Social	369	543	411	3 phút 15 giây	1,11	18,21
7	Email	260	525	403	1 phút 34 giây	1,55	18,12
8	Cross-network	9	16	11	6 giây	1,22	4,69
9	Display	6	10	3	0 giây	0,50	5,20
10	Organic Video	2	2	2	20 giây	1,00	7,50

Figure 40: Sources of Traffic of Merchandise store (Source: GG Analytics)

- Direct is the channel by which users arrive at your site/app via a saved link or by entering your URL.
- Organic Search is the channel by which users arrive at your site/app via non-ad links in organic-search results.
- Unassigned (Traffic has not been assigned): traffic is not assigned to any specific traffic source or medium in the default channel category when the

session is not segmented. This can happen when users click on a link that doesn't have a UTM parameter tag, or when UTM parameters aren't assigned to a specific channel group.

- Referral is the channel by which users arrive at your site via non-ad links on other sites/apps (e.g., blogs, news sites).
- Paid Search is the channel by which users arrive at your site/app via ads on search-engine sites like Bing, Baidu, or Google.

=> Thanks to the image above, we will be able to know how users access our website (directly, email, paid search,...) thereby understanding their behavior and devising strategies. strategy to encourage them to participate in our website and maintain longer use time.

- Methods to improve index:
  + Take advantage of UTM parameters to track the performance of your campaigns and accurately attribute traffic to specific channels.
  + Track the performance of each channel regularly and adjust your marketing strategy accordingly. Also, take advantage of our ultimate Content Marketing guide for tracking your marketing efforts.
  + Optimize your website content for search engines to increase organic search traffic.
  + Engage with your audience on social media to increase referral traffic from those platforms.
  + Consider investing in paid advertising on channels that drive high-quality website traffic.

1.10 Google Ads Analytics

Google Ads Analytics refers to the integration of your Google Ads data with Google Analytics data. This integration lets you view performance data for your online advertising campaigns in Google Analytics, including impressions, clicks, conversions, and more. Google Ads Analytics also helps you more understand how your advertising campaigns are performing so that you can make data-driven decisions to optimize them.

1.10.1 ROAS

All channels | 3/3 important events | Custom March 4 - March 10, 2024

	Main channel group...default channel)	Important event	Advertising costs	Cost per main event interaction	Number of ad clicks	Cost per ad click	total revenue
		15,082.00 100% in total	$154.10 100% in total	0.01$ Average 0%	11,859 100% in total	0.01$ Average 0%	$27,656.99 100% in total
1	Direct	9.949,00	0,00 $	0,00 $	0	0,00 $	19.739,24 $
2	Organic Search	4.478,52	0,00 $	0,00 $	0	0,00 $	6.783,35 $
3	Organic Social	295,67	0,00 $	0,00 $	0	0,00 $	435,40 $
4	Email	205,87	0,00 $	0,00 $	0	0,00 $	418,40 $
5	Referral	119,75	0,00 $	0,00 $	0	0,00 $	280,60 $
6	Paid Search	30,18	0,00 $	0,00 $	0	0,00 $	0,00 $
7	Cross-network	2,00	0,00 $	0,00 $	0	0,00 $	0,00 $
8	Display	1,00	64,90 $	64,90 $	11.816	0,01 $	0,00 $
9	Paid Other	0,00	89,20 $	0,00 $	43	2,07 $	0,00 $

Figure 41: Google Ads Analytics of Merchandise store 4th-10th March (Source: Google Analytics)

All channels | 3/3 important events | Custom March 11 - March 17, 2024

	Main channel group...default channel)	Important event	Advertising costs	Cost per main event interaction	Number of ad clicks	Cost per ad click	total revenue
		15,077.00 100% in total	$148.91 100% in total	0.01$ Average 0%	11,297 100% in total	0.01$ Average 0%	$27,623.33 100% in total
first	Direct	10,040.00	$0.00	$0.00	0	$0.00	$18,895.78
2	Organic Search	4,292.81	$0.00	$0.00	0	$0.00	$7,637.53
3	Organic Social	313.68	$0.00	$0.00	0	$0.00	$111.40
4	Email	216.21	$0.00	$0.00	0	$0.00	$967.55
5	Referral	130.69	$0.00	$0.00	0	$0.00	$11.07
6	Paid Search	79.60	$0.00	$0.00	0	$0.00	$0.00
7	Cross-network	3.00	$0.00	$0.00	0	$0.00	$0.00
8	display	1.00	$59.26	$59.26	11,264	0.01$	$0.00
9	Paid Other	0.00	$89.65	$0.00	33	$2.72	$0.00

Figure 42: Google Ads Analytics of Merchandise store 11th-17th March (Source: Google Analytics)

Figure 43: The Return on ad spend formula (Source: Google)

- Return on Ad Spend (ROAS) is a marketing metric that measures revenue earned for each dollar you spend on advertising. By calculating and tracking ROAS, you gain insights on the effectiveness of your advertising.
- ROAS (4th-10th March) = 27.656/154 = 0.18
- ROAS (11th-17th March) = 27.623/148 = 0.19

You can easily see that the total advertising cost and total revenue from March 4 to March 10 are higher than the total cost and total revenue from March 11 to March 17. However, March 4 - 10 had a lower ROAS than March 11 - 17. This shows that the effectiveness of an advertising campaign depends not only on total revenue but also on the total cost spent on a campaign. Even though the total revenue collected is higher, the cost of that campaign is also high, so it is not necessarily more effective than other campaigns.

1.10.2 CPC (Cost Per Click)

CPC is the cost per click that an ad receives. It’s a metric that applies to all types of ads, whether they have text, images, or videos.

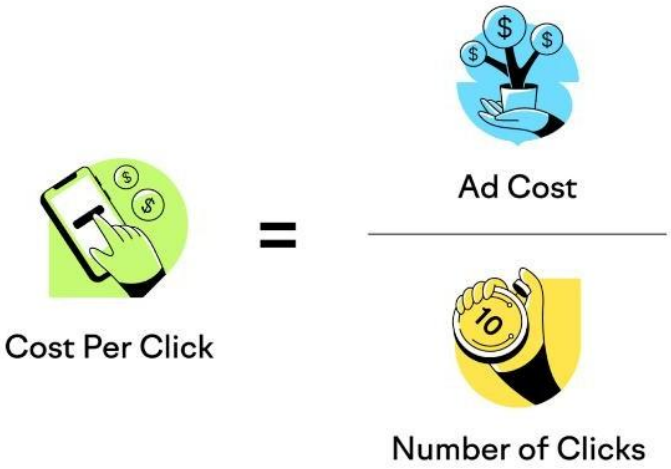

Figure 44 : Cost Per Click formula (Source: Semrush)

Search... Rows per page: 10 1-10 of 10

	Primary channel...Channel Group)	Key events	Ads cost	Cost per key event interaction	Ads clicks	Ads cost per click	Total revenue	Return on ad spend
		59,525.00 100% of total	$580.05 100% of total	$0.01 Avg 0%	45,078 100% of total	$0.01 Avg 0%	$106,620.08 100% of total	183.81 Avg 0%
1	Direct	38,965.00	$0.00	$0.00	0	$0.00	$73,357.19	0.00
2	Organic Search	17,364.72	$0.00	$0.00	0	$0.00	$26,510.99	0.00
3	Organic Social	1,122.81	$0.00	$0.00	0	$0.00	$1,356.33	0.00
4	Email	1,060.19	$0.00	$0.00	0	$0.00	$4,837.83	0.00
5	Referral	831.50	$0.00	$0.00	0	$0.00	$557.74	0.00
6	Paid Search	162.79	$0.00	$0.00	0	$0.00	$0.00	0.00
7	Cross-network	13.00	$0.00	$0.00	0	$0.00	$0.00	0.00
8	Organic Video	3.00	$0.00	$0.00	0	$0.00	$0.00	0.00
9	Display	2.00	$228.43	$114.21	44,921	$0.01	$0.00	0.00
10	Paid Other	0.00	$351.62	$0.00	157	$2.24	$0.00	0.00

Figure 45: Cost Per Click on google ads of google merchandise (Source: Google Analytics)

Thanks to Google Ads Analytics, we can see the total cost and total revenue of advertising campaigns to be able to propose appropriate strategies, methods, and policies to improve the effectiveness of an advertising campaign or continue to maintain the current level if the campaign has followed the business's wishes

- Methods to improve index:
  + Set up conversion tracking for your advertising campaigns to accurately measure your campaigns' success.
  + Use the Google Ads Integration feature in Google Analytics to create custom reports and insights that are specific to your advertising data.

+ Use data from Google Ads Analytics to identify areas for improvement, such as keywords that are not performing well, Ads groups that need to be optimized, and targeting strategies that need to be adjusted.
+ Use A/B testing to optimize your advertising campaigns continuously and improve your Google Ads Analytics metrics.

1.11 Purchase Journey

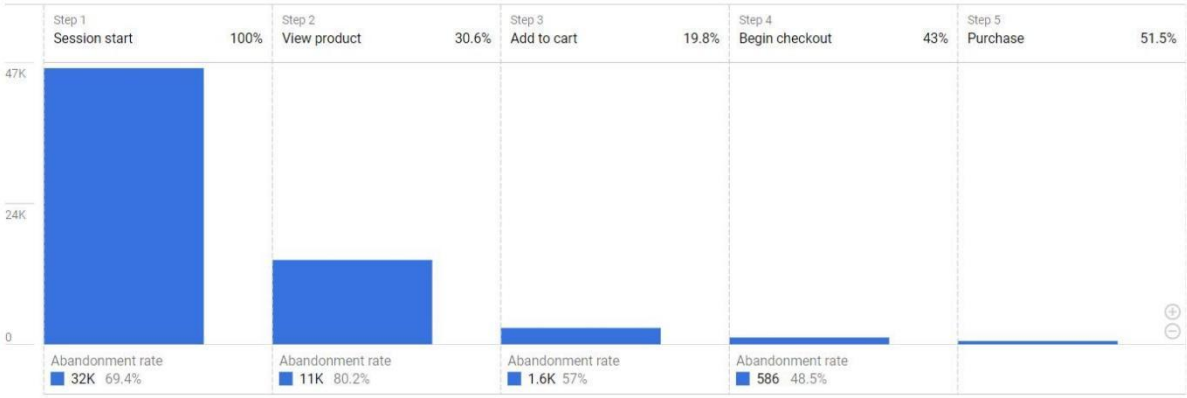

Figure 46:Abandonment rate (Source: Google Analytics)

Search... Rows per page: 10 1-4 of 4

	Device category	1. Session start (User count)	2. View product (User count)	3. Add to cart (User count)	4. Begin checkout (User count)	5. Purchase (User count)
		47,658 100% of total	14,557 100% of total	2,873 100% of total	1,238 100% of total	637 100% of total
1	mobile	25,847	4,989	623	218	75
2	desktop	17,493	9,150	2,220	1,016	559
3	tablet	3,981	290	30	4	3
4	smart tv	7	4	0	0	0

Figure 47:Customer purchasing process (Source: Google Analytics)

The customer's purchasing journey includes Session start, view product, add to cart, begin checkout and purchase.

The total number of sessions initiated, products viewed, items added to the cart, sessions started to checkout, and purchases made provide an overview of user engagement on the platform.

The number of sessions initiated (47.658 users) is considerably higher than the number of product views(14.557 users), indicating that not every session progresses to viewing products. The conversion funnel narrows down from product views to items

added to the cart (2.873 users) , sessions started to checkout (1.238 users) , and ultimately purchases made (673 users).

- **Mobile:**

Mobile devices have the highest number of sessions initiated (25.847) , but relatively lower product views (4.989) compared to desktops. The conversion rates from product views to cart additions (0.125), cart additions to sessions started to checkout (0.351), and checkout to purchase (0.344) are moderate, indicating a steady conversion flow.

- **Desktop:**

Desktops have a substantial number of product views (9150) and exhibit higher conversion rates at each stage of the funnel compared to mobile devices and tablets. The conversion rates from product views to cart additions (0.243), cart additions to sessions started to checkout (0.458), and checkout to purchase (0.550) are notably higher than mobile and tablet devices.

- **Tablet:**

Tablet devices show the lowest number of sessions initiated (3.981) and product views (290) among the devices analyzed. While the conversion rates from product views to cart additions (0.103) and cart additions to sessions started to checkout (0.133) are lower compared to desktops and mobiles, the conversion rate from sessions started to checkout to purchase (0.750)is the highest among all devices.

- **Smart TV:**

Smart TVs have the lowest engagement levels, with minimal sessions initiated (7) and product views (4). They also lack any significant progression through the conversion funnel, with zero cart additions, sessions started to checkout, or purchases.

~ Across all devices, the highest drop-offs in the conversion funnel occur between product views and cart additions, indicating potential issues with product interest or usability in transitioning from browsing to considering purchase.

~ To optimize the website and increase conversion rates, you can optimize the mobile experience by ensuring the website is responsive, loads quickly, and is user-

friendly on mobile devices. Next, enhance product visibility by improving product images, detailed descriptions, and customer reviews. Simultaneously, streamline the checkout process and optimize the payment experience for mobile devices. Leverage the higher conversion rates on desktops by optimizing marketing strategies and shopping experiences for desktop users. Lastly, ensure the website provides a seamless shopping experience across all devices and conduct continuous evaluation and testing to improve performance and user experience.

2. Recommendations and Best Practices

2.1 Implementation of KPIs and Web Analytics for Google Merchandise Store

2.1.1 Assess current business objectives and key performance indicators (KPIs) to ensure alignment.

2.1.1.1 Conversion Rate:

During the period from February to March, the conversion rate was Total Conversion rate: 3,5 and 59,301 conversions. After running the campaign, we expect it to increase by 4% to a new conversion rate of 7.5%. This figure reflects the store's ability to convert customers from product views to purchases while ensuring the feasibility of the project.

2.1.1.2 Total Revenue:

During the same period, we anticipate that sales revenue has increased by approximately $200,000, from $104,874.36 in the previous month to around $304,874.36. This growth indicates that the campaign has achieved its business goal in terms of sales revenue.

2.1.1.3 Bounce rate:

Bounce rate on the website will decrease from 48.23% to 40% during the period after running the campaign. This indicates future improvements to the attractiveness and trending content of the website, making it easier for customers to maintain a website experience with diverse products.

2.1.1.4 Customer Retention Rate:

From February 20 to March 18, the number of returning users decreased from 876 to 317. This shows that the store's ability to retain current customers is low and faces some problems, perhaps with loading speed, an unattractive interface, lack of product

diversity to meet customer needs. Therefore, the website needs to establish and increase the customer return rate to 20% to increase interaction and purchase rates.

2.1.1.5 Average Time on Page:

During the same period, the average time users spent on the website was 3 minutes. Employers want customers to spend time browsing their homepage in increments of 3-4 minutes. This indicates that customers want to spend more time interacting with the content and products they like on the website.

2.1.1.6 Advertising costs:

In addition, if a business wants to run ads on social platforms, analysis is needed to consider the cost of running ads. In data analysis, advertising costs are high but the number of customers clicking on ads is low, specifically from February 20 to March 20, 2024, Hang spent 580.05 USD on advertising costs but received only 45,078 ad clicks. The problem probably comes from unattractive advertising campaigns that fail to attract customers' attention.

2.1.2 Strategies for optimizing performance based on the findings

2.1.2.1 Refine marketing strategies based on insights based on the findings

Based on information from website analytics, refine your marketing strategy to reflect trends and insights into customer behavior. For example, with increased conversion rates, content and advertising need to be adjusted to create a better buying experience and stimulate shopping action.

For products or services with unique benefits for each customer, use data from analytics to create personalized outreach strategies, thereby increasing conversion opportunities and increasing sales. sell.

2.1.2.2 Specifically operationalizing the strategies for optimizing performance

- **Adjust product segmentation and advertising strategy:**

Based on customers' personality and shopping behavior, some reports have shown that men have a higher purchase rate of Merchandise products than women, especially those who are men aged 18–34 in the United States. Therefore, e-commerce managers should focus on allocating marketing resources to this audience. We can focus on items that most young men like. According to several surveys and research articles, t-shirts, jackets, camping backpacks, game consoles, headphones and IT-related

products are the products loved by men. If we grasp and understand the needs and preferences of customers, we can focus on promoting campaigns and developing websites in that direction, thereby helping to attract more customers as well as increase product sales.

To effectively reach target customers, social network managers can use hashtags as well as deploy sales programs and run advertising campaigns on social networking platforms and design landing pages on Merchandise's sales website. This way, they can create connections and attract target customers through the social media platforms that this audience often uses.

Case: This summer, Merchandise will discount some items on t-shirts and jackets for men. They will create a landing page on their website to announce the campaign and attract customers to click to view and buy the product.

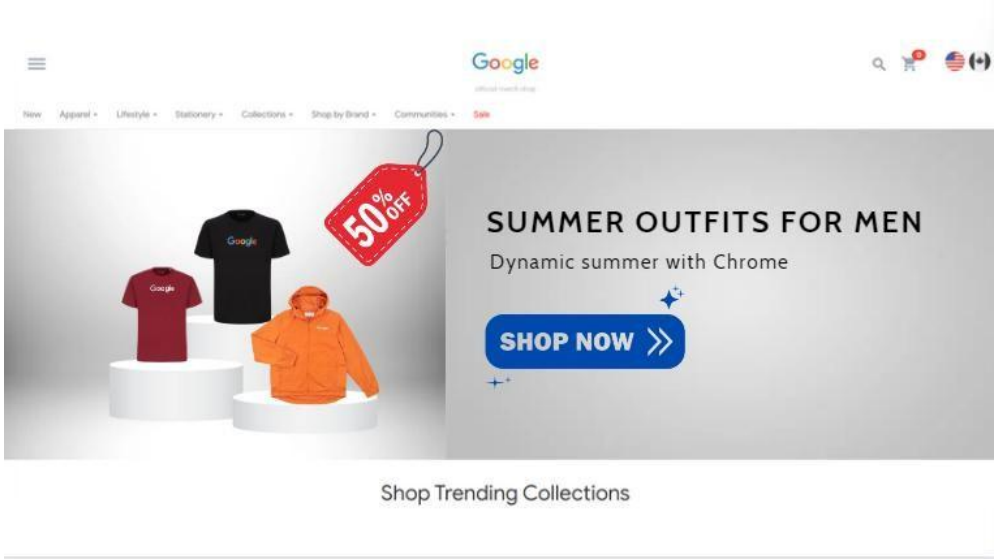

Figure 48: Demo landing page on Merchandise's sales website (Source: my group)

In addition, you can run ads on Youtube to promote this sale campaign.

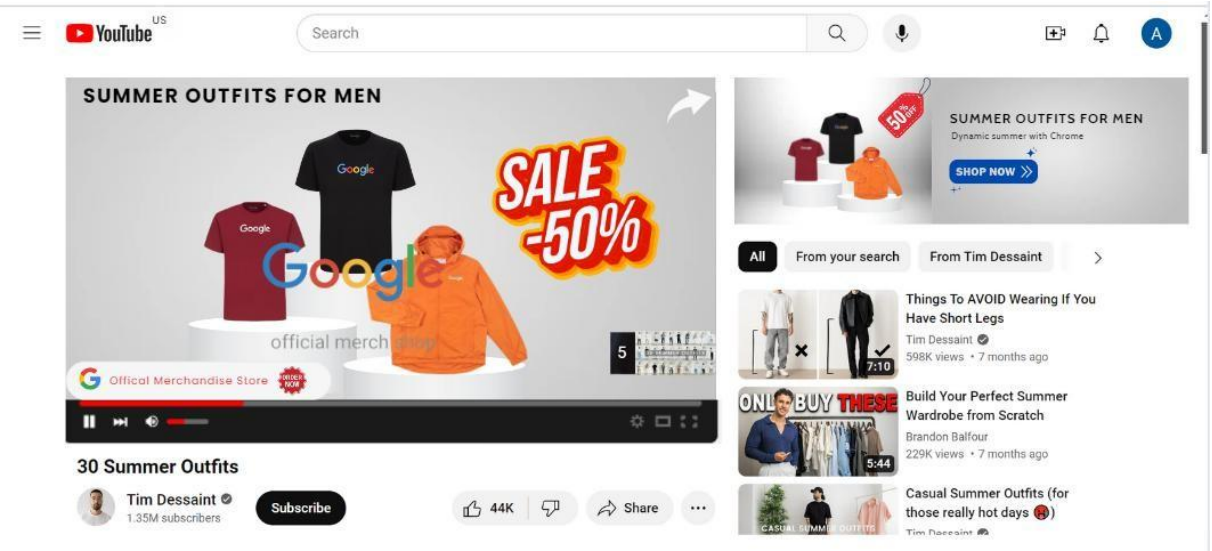

Figure 49:Demo running ads on youtube (Source: my group)

- **Optimize the layout and design of the website:**

It is necessary to consider the user's browsing time. With an average session time of two minutes for new users and four minutes for returning users, ensuring visitors can easily find the products they are interested in is important. Content creators can add clear tags and eye-catching product images to attract consumer attention. Providing informative content is also an important factor, helping customers better understand the products they are interested in.

At the same time, suggesting similar or related products as customers browse is also an effective strategy. This can make it easier for customers to find suitable items and improve their satisfaction and increase their purchase profile. This way, the website can increase interactivity and efficiency in converting visitors into buying customers.

- **Increase customer convenience:**

Webmasters can focus on improving the online shopping experience. Research has shown that the quality of online stores influences consumers' purchasing decisions, and they tend to shop from better-designed stores. To meet this need, webmasters can simplify the payment process and improve the convenience of their website. This way, consumers will have a smoother and easier shopping experience, from product search to payment and delivery.

Payment and shipping information can also be stored in-store, saving consumers time and eliminating the need to enter data each time they make a purchase. This creates a

more convenient and friendly shopping environment for customers, thereby increasing the chances of them coming back and making more purchases in the future.

2.2 Communication Plan

Role	**Information to Be Shared**	**Means of Communication**
CEO	1. Overview of KPI implementation and web analytics for the company.	1. Monthly Executive Summary Reports. Quarterly Presentations on 2. KPI Progress Face to face Meeting.
Marketing team	1. Details on setting up KPIs aligned with business objectives. 2.Strategies for optimizing performance based on findings. 3. Importance of customer segmentation and targeted advertising.	1. Emails and participation in workshops.
Project manager	1. Weekly progress reports and detailed updates on KPI deployment.	1. Weekly progress meetings and bi-weekly reports.
IT team	1. Technical information and documentation on KPI deployment. 2. Information about web activity (fast, slow loading, errors...).	1. Updates and alerts from the system 2. Weekly IT meetings.

Analytics Team	1. Data-driven insights and recommendations for improving performance.	1. Regular analytics team meetings. 2. Reports and presentations.
External ad agency	1. Insights on consumer behavior and performance metrics. 2. Importance of aligning marketing strategies with web analytics findings.	1. Monthly performance meetings and strategy sessions. 2. Conference calls.

Table 3: Communication Plan

2.3 Continuous monitoring and adjustment:

2.3.1 Review and adjust targets regularly to reflect changing market conditions:

Track current business indicators and compare with initially set goals. If the difference is too large, it is necessary to review and adjust the goals to match the actual situation. Track changes in key metrics over time, like conversion rate, revenue, bounce rate, customer retention rate, and average time on page. This helps detect potential trends and problems early, thereby providing timely corrective measures.

2.3.2. Adjust strategy based on market development dynamics:

Monitor market developments and changes to adjust business strategies. For example, if online shopping trends increase, it may be necessary to increase online marketing and website optimization to attract and retain customers online. Capture information about competitive partners and their activities to adjust business strategies. This helps ensure that the company can take advantage of opportunities and respond to challenges from the competitive environment.

2.3.3 Continuous evaluation and improvement:

We should periodically evaluate the effectiveness of the corrective measures taken. In addition, we also need to consider whether these measures have achieved the desired results and what value has been created for the business. From there, based on this assessment, adjust and perfect your business strategy.

D. Conclusion

The successful integration of Key Performance Indicators (KPIs) and web analytics within the operations of Google Merchandise Store exemplifies their pivotal role in enhancing performance and fostering success in e-commerce endeavors. The case study of Google Merchandise Store has shed light on several crucial recommendations and best practices.

First, e-commerce entities need to align their KPIs with overall business goals. By establishing transparent and quantifiable KPIs such as conversion rate, total revenue, bounce rate, customer retention rate, average time on page, and new vs. returning visitors ratio, businesses can effectively gauge their progress and make informed decisions based on data-driven insights.

Secondly, the utilization of web analytics to fine-tune performance strategies is indispensable. Tactics such as refining product segmentation and advertising, optimizing website layout and design, and enhancing customer convenience have proven to elevate user experience and foster increased engagement.

Moreover, the case study underscores the importance of continuous monitoring and analysis, alongside the integration of web analytics with overarching marketing strategies. Through the adept utilization of advanced analytics tools and the adoption of personalized customer segmentation approaches, e-commerce ventures can maintain a competitive edge and adeptly adapt to evolving consumer preferences and behaviors.

In essence, the remarkable success achieved by Google Merchandise Store stands as a testament to the transformative power of KPIs and web analytics in driving e-commerce prosperity. Consequently, it is imperative for other players in the e-commerce realm to heed this clarion call and embrace these strategies to unlock their full potential in the digital arena. By doing so, they can propel growth, amplify customer satisfaction, and forge a path toward enduring success in an increasingly competitive landscape.

In conclusion, the integration of KPIs and web analytics transcends mere recommendation; it emerges as an indispensable imperative for e-commerce entities aspiring to thrive in the contemporary digital landscape.

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