

Czech University of Life Sciences Prague

Faculty of Economics and Management

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Bachelor Thesis

Key performance indicators for website performance analysis

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Thesis title

Key performance indicators for website performance analysis

Objectives of thesis

The main objective of the thesis is to analyze the performance data of a selected businesses including the retailer's website.

The partial objectives of the thesis are the following:

- To evaluate certain parameters of website KPIs such as number of visitors and their view performance.
- To illustrate how analyzing KPIs can provide useful information to improve performance of internet website.
- To propose recommendations and strategies to resolve potential issues discovered during the KPI analysis.

Methodology

The theoretical part of KPIs for website performance analysis will consist of research of available literary resources regarding key performance indicators, tools for analyzing KPIs, and the data collection process. The thesis will utilize basic scientific methods such as analysis, synthesis, comparison, induction, and deduction. The practical part of the thesis will include collection of the website analytical data and the comparison of different types of KPIs. Final conclusions will be formulated based on results of both thesis parts.

The proposed extent of the thesis

30-40

Keywords

key performance indicators, research design analysis, performance analysis, website evaluation, data analysis

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Parmenter, D. 2009. *Key Performance Indicators: Developing, Implementing, and Using Winning KPIs*. Wiley, New Jersey, USA.

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Declaration

I declare that I have worked on my bachelor thesis titled "Key performance indicators for website performance analysis" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the bachelor thesis, I declare that the thesis does not break the copyrights of any person.

In Prague on date of submission _____

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Key performance indicators for website performance analysis

Abstract

Key performance indicators (KPIs) are an important aspect of any kind of business. KPIs have obtained the results from businesses by measuring their performance. The purpose of this thesis is to understand the insights and the performance of specific KPIs of retailer's websites. The theoretical part has described the interpretation of different types of KPIs and their characteristics. Practical has demonstrated the analysis and correlation between two case companies by applying selected KPIs. Recommendations and conclusions will be reached by combining knowledge obtained in the theoretical part and the results of the analysis in the practical part.

Keywords: key performance indicators, research design analysis, performance analysis, website evaluation, data analysis.

Klíčové ukazatele výkonnosti pro analýzu výkonu webových stránek

Abstrakt

Klíčové ukazatele výkonnosti (KPI – Key performance indicators) jsou důležitým aspektem jakéhokoli druhu podnikání. Získání klíčových ukazatelů v podniku umožňuje měřit jeho výkon. Účelem této práce je analyzovat poznatky v této oblasti, se zaměřením na specifické ukazatele výkonu vhodné pro weby online prodejců. V teoretické části jsou popsány různé typy ukazatelů a jejich charakteristiky. Praktická část zpracovává analýzu a korelaci mezi dvěma podniky za použití vybraných ukazatelů. Na základě získaných poznatků teoretické části a výsledků analýzy praktické části budou formulovány doporučení a závěry.

Klíčová slova: klíčové ukazatele výkonnosti, analýza designu výzkumu, analýza výkonu, hodnocení webových stránek, analýza dat

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1 Introduction

Key performance indicators are the critical (key) indicators of progress moving forward to the ideal results. KPIs provide a way to focus on strategic and operational improvements also creating an analytical basis for the decision-making process and help to focus consideration on the matters what is more valuable.

KPIs are the most important things for any kind of business. Whatever it's a big or small business it doesn't matter, improving business it's necessary to check entire activities. Without checking performance and analysis, it is impossible to grow a business. Generally, all categories of businesses must check their activities for instance: daily visitors, new visitors, registered visitors, total time spent, the product sales, returning visitors (Good impact for business), average view, advertising, and so on (Indeed Career Guide, 2019).

For the selected businesses including the retailer's websites can get the advantage to use KPIs for their performance analysis. To evaluate certain parameters of website KPIs such as the number of visitors and their view performance. Businesses can easily improve performance over the internet by getting information provided by KPI analysis reports.

An organization can choose its KPIs according to its business category. In the case of a retailer's website, the focus should be on tracking their visitors, checking activities, analyzing performance to achieve their goals.

In the early 2010s, research has displayed that KPIs measurement in business is becoming more attentive to the different fields of companies and their research programs (Franceschini and Galetto, 2007). Different types of indicators are important for retailer companies across the supply chain (Anand and Grover, 2015, pp. 135-166). Companies are struggling to define processes of which activities are causing more losses. In general, companies want to be the precursor in the market and get a competitive advantage by implementing their process effectively.

Business environments have been changing day by day. Recognizing KPIs has significantly increased. It has importance in a business environment. It also needs to be recognized if there are existing or new performance indicators that could be taken advantage of. KPIs help to achieve the way that supports and extends the idea of a cooperative partnership in the workplace.

A partnership between employees, management, suppliers, customers, and the operating organization communities. There are four general principles to describe the basis of their organization (Paramenter, 2017):

- a. Partnership with the staff, key suppliers, key customers, and unions.
- b. Shifting of power to the front line.
- C. Integration of measurement, reporting, and improvement of performance.
- d. Linkage of performance measures to strategy.

Those four principles also knowns as four foundation stones (Paramenter, 2017).

2 Objective and methodology

2.1 Objectives

The main objective of the thesis is to analyze the performance data of selected businesses including the retailer's website.

The partial objectives of the thesis are the following:

- To evaluate certain parameters of website KPIs such as the number of visitors and their view performance.
- To illustrate how analyzing KPIs can provide useful information to improve the performance of internet websites.
- To propose recommendations and strategies to resolve potential issues discovered during the KPI analysis.

2.2 Methodology

The theoretical part of KPIs for website performance analysis will consist of research of available literary resources regarding key performance indicators, tools for analyzing KPIs, and the data collection process. The thesis has utilized basic scientific methods such as analysis, synthesis, comparison, induction, and deduction. The practical part of the thesis was included the collection of the website's analytical data and the comparison of different types of KPIs. Conclusions have been formulated based on the outcomes of the theoretical and practical part.

3 Literature review

3.1 Introduction of KPIs

Companies are working with different types of KPIs to measure their performance. But some of them are using wrong and some of them are using true KPIs to monitor their business. Because very few organizations, business leaders, writers, accountants, and consultants have discovered what a KPI is. According to the (Paramenter, 2017), there are three types of performance measures described as an onion analogy:

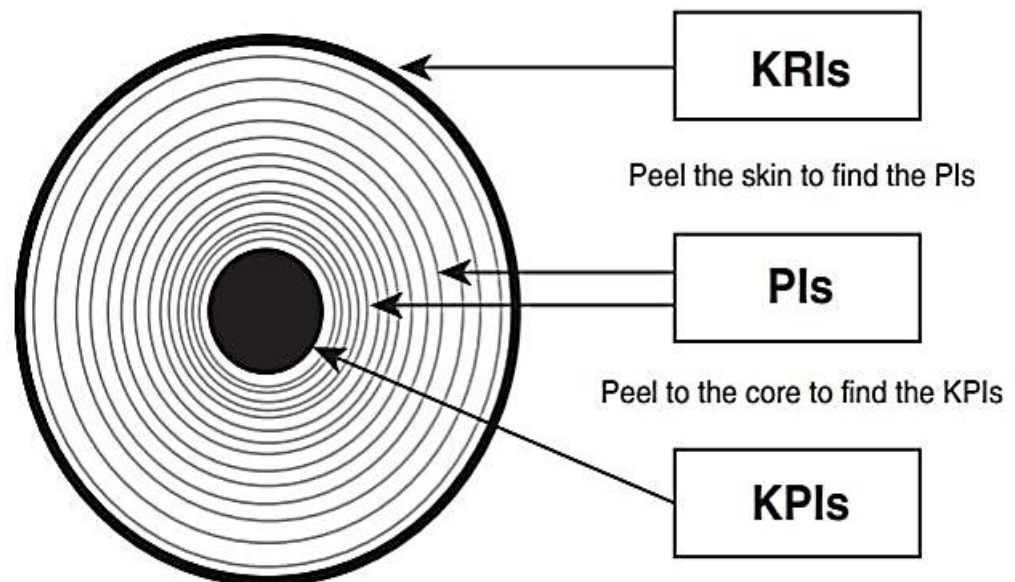


Figure 1: Types of performance measures (KPIs).

Source: Key Performance Indicators Developing, Implementing, and Using Winning KPIs (Paramenter, 2017, p. 02)

1. Key results indicators (KRIs) tell how the company has done in perspective.
2. Performance indicators (PIs) describe what to do.
3. Key Performance Indicators (KPIs) establish what to do to increase performance dramatically.

Many performance measures employed by organizations are thus an inappropriate mixture of these three types. An onion analogy can be used to describe the relationship between these three measures.

Outside skin determines the overall condition of the onion, the amount of sun, water, and nutrients it's received; how it's been handled from harvest to supermarket shelf. However, as we peel the layers off the onion, we discover more information. The layers represent the various performance indicators, and therefore the core is the key performance indicators (Paramenter, 2017, pp. 1-2).

3.2 Key results indicators

Many successful businesses spend valuable time observing their Key results indicators (KRIs). To find out where changes or modifications need to be made to improve results and achieve success in particular sectors. KRIs has offered an overview of the past performance and help the organization unify on a company or department's performance and provide knowledge on where should take a step to make improvements (Page, 2017).

Very few organizations focus their Key performance indicators. But this is an ideal platform where it can be more beneficial for businesses to achieve their goals. Looking at the result indicators, an organization can identify in which sector the result is not reaching an acceptable level.

A few characteristics of these measures are:

- Satisfaction of customers
- Total profit before paying tax
- Beneficial of customers
- Satisfaction of employees
- Return on capital to the employer

The general characteristics of these measures are the result of various activities. It provides a clear idea of whether businesses are moving in the right direction or not (Paramenter, 2017). Key results indicators are typically divided into two categories, financial and non-financial related (Bernstein, 2019).

Financial KRIs are including:

- Total income or gross income in a business
- Total gross income before paying the tax
- Profit margins are split by location, product, customer

- Profits in connection with revenue
- Return on revenue
- Market shares in the business.

Non-financial KRIs include:

- The number of client allegations, returns, or inquiries
- The average number of sales that are closed
- Lead
- Client satisfaction
- Retention of employee
- Number of membership subscription
- Time for implementation or waiting for service.

3.3 Performance indicators

Measuring business performance can be tricky. To completely define the process, organizations must realize specifically what they are measuring, why they are measuring it, and what they can observe from these measurements to improve business performance. At a business activity, the most important thing is to measure how to reach the business goal. The result of the research by HubSpot (HubSpot, 2013), shows that 72% of business websites having a failure mark of 59/100 or lower, and according to the research of Forbes, the number one reason for website failures is not having a clear business objective.

In a retailer's website, a successful website can turn a company around. It can increase companies' sales, build awareness, help to improve customer experience, reduce expenses, enhance workflow, and help to grow the company. Before developing a website's goals, it is necessary to review shareholders of the company (usually department heads) to understand more about their needs and how the websites can collaborate with them. According to (Kucheriavy, 2015) common examples of shareholder interests include:

- Marketing - to build attraction of the customers and add the vision, generate lead by customer satisfaction and re-engage existing customers.
- Sales - for helping the sales team to validate and support their communications and help to close sales.

- Operations - move forward to the streamline of workflows and be aware of reducing costs.
- Content Contributor- update content and optimize the website management.
- Customer support- pay attention to improve customer satisfaction by helping and supporting them.
- HR - to support current employees and recruit new employees.
- IT - to implement the current technical network, develop standard security, performance, and scalability requirements.
- Executives- improve the bottom line and increase the profit of the businesses.

Business objectives are targeting an organization that sets out to achieve the business goals. Performance indicators are helping to set the business objectives to achieve their goals. There has a small point to measure in a business if something does not know whether the outcome is satisfactory and not able to decide if performance needs to change (ThinkAhead, 2015). The Organizations could create a hierarchy of business objectives which will include combined objectives that can affect the organizations as a whole and the objectives that will affect individual business units within the organizations. Even here objectives will be shorted as primary and secondary, for example, an organization might set a primary objective to itself for improving the profits but then it will be needed to develop strategies to make sure this primary objective is achieved. That is why the secondary objective is needed. For instance, to improve product quality or to make more effective use of resources. Following the SMART rule by (Gregory, 2020), the objectives should be as follows:

Specific - there is a small point of setting an objective for a business to improve its inventory. The meaning of this section is that its share-outs should be less frequent, or an average number of shareholders should be lower, or the inventory should be kept in better conditions to reduce the cost.

Measurable - if the organizations do not measure, then they will be at a loss and will lose control of their business. From some perspective of performance might be difficult to measure, but their ambition must be fixed. In a business, customer satisfaction is the most important part, most businesses could be obtained by arranging customer surveys.

Achievable - business objectives are achieved by an organization and those organizations must accept and agree that the objectives are achievable and important. Comparing their goals to their current numbers and asking the organization if they can be realistically accomplished.

Relevant - to ensure that there is a clear path from what organizations want to be accomplished to the business objectives of companies.

Time-limited- Set up a time frame for achieving the business goal. It can be divided by different periods such as year, six months, one month, or a week. Organizations must ensure that the target is clear because It helps to reach the milestone.

According to **SMART** rules, organizations can specify their performance unit and measuring them in a relevant way, for setting up the time limit, they can achieve their business goal in the exact time.

3.4 Key performance indicators

Most important is to understand that it is not an easy and fast process to start designing and building a working measurement system. According to (Franceschini and Galetto, 2007, pp. 7-10), the most critical stage is the design part. A measurement system does not define all the indicators but defines just the indicators which describe value-adding areas of an organization. Additionally, by defining indicators that are affecting the key processes, that will create value to the company and the customers, what is necessary? Also measuring the facts of processes, these indicators are often most important (Bai and Sarkis, 2014).

KPIs perform a set of measures to observe those perspectives of organizational performance that are the most difficult for the present and future success of the organization. KPIs are new to the organization, they have not been recognized or were “gathering dust” somewhere is not familiar to the current management team (Paramenter, 2017, p. 4).

Monitoring and analyzing data can help to get insights, to understand what is happening, what is not, and how an organization can develop its site for even better outcomes. Using KPIs tools organization can get many reports while each of the various reports can help the organization to learn many things about their customers but they don't need to be observed all of them regularly. More particularly, it depends on company type, business model, and what is the business goals to achieve (Zheng, 2019).

3.4.1 Characteristics of KPIs

After comprehensive analysis by (Paramenter, 2017, pp. 5,6), from discussions with over 1500 participants in his KPIs working-platform and it was covering most of the organization types in the public and private sections. He defined seven characteristics of KPIs:

1. Non-financial measures (not measured in financial way, euros, pounds, taka)
2. Repeatedly measured (it can be daily or 24/7)
3. Performed by the senior management team or by the CEO
4. Amenableness to the individuals or team
5. Understanding of the measures, corrective action requisite by all team members (help each other to reach the goal)
6. Effective impact
7. Positive influence.

Except for those characteristics, there are three key elements in the identification of KPIs:

- identifying the indicators
- all the indicators must be accepted and fully understood by the employees and managers of the company
- indicators must be accomplished and traceable.

Moreover, indicators are often operated extremely and the direction for using them is also generally hard to understand or perform in real life (Franceschini and Galetto, 2007, pp. 8-9). One of the main purposes for this is the amount of data that organizations collect, particularly when the volume of inputs is increasing, and the management of data collection becomes more complex. Therefore, taking the actions of the decision has had more impact on the indicator's nature, use, and time horizon in the short term or long-term.

Despite the huge amount of data, there is no ruled number of key performance indicators that are needed in the organizations. Generally, companies are using indicators between 3 and 15 at each level of the organization. According to (Bauer, 2004, pp. 63-64), the number of data and key performance indicators that are measured is not going too high and the data analyzer doesn't have much content of information to experiment with. In that case, the decision-making team in the organization can make decisions very fast when just all the relevant measures are under control.

Following, Stricker *et al.*, 2017 add in their article that is the number of the information content is directly balanced to the simplicity of the KPIs which is visualized in figure (2) (Stricker *et al.*, 2017).

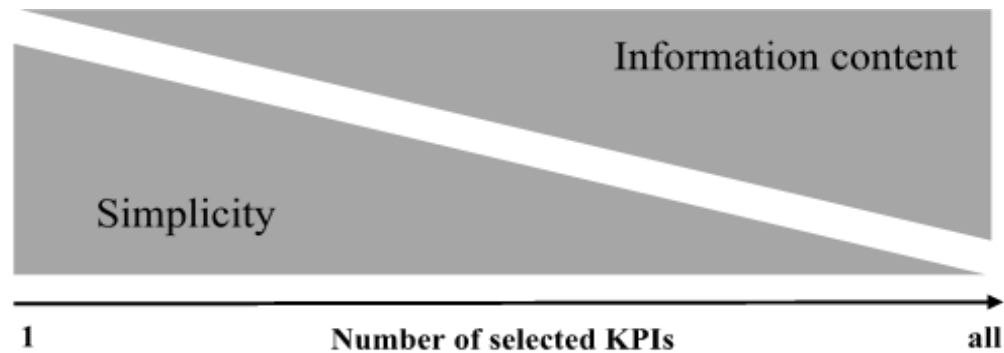


Figure 2: The relationship between information content and simplicity.

Source: <https://www.tandfonline.com/doi/full/10.1080/00207543.2017.1287444>

In general, KPIs are significant measurements and are determined earlier which influence extremely the success factors of the company and its organization (Bauer, 2004, pp. 63-64). According to Franceschini (Franceschini and Galetto, 2007, pp. 127), that is relevant to get the right balance with several types of performance indicators between internal and external requirements. And, it has defined different financial and non-financial measures. Financial performance measurements are necessary for critical conclusions and external reporting. Such manufacturing control or distribution operations on a different daily basis are handled better by non-financial measures. (Anand and Grover, 2015, pp. 140).

3.4.2 Categories of KPIs

KPIs can be divided into broad categories. Most of the categories relate to a specific objective. However, according to (All KPIs, 2016), KPIs are divided based on different types of indicators (see table 1).

Table 1 Categories of KPIs

Process indicators	Measure the productivity of a business process
Input indicators	Measuring companies' assets and resources
Output indicators	Measuring the financial and non-financial results of working activities
Leading indicators	Measure activities that have a powerful impact on companies' future performance
Lagging indicators	Measuring the success and failure rate after a business event
Outcome indicators	Measures the benefits of performance as an outcome of a business
Qualitative indicators	Illustrative measurements.
Quantitative indicators	Measuring the results in a ratio, percentages, or number.

Source: https://allkpis.com/kpi_types_and_kpi_examples

Process indicators: Process indicators provide deep dive into the performance internal activities of a company. By these indicators, the company can measure the efficiency or productivity of the business process. For example, time to complete the order from the customer.

Input indicators: Input indicators define the effort to a business, time, and raw material or resources used in business to generate specific results. A company using these indicators to measure assets and resources. For example, funding for starting a business.

Output indicators: The output is measurable results that specify how much work is done and define what is produced. That means it considers the outcome or results of the process activities.

Leading indicators: Lead indicators are always more complicated to define than lag indicators. They are predictive and consequently do not assure success. That's why this not only makes it complicated to decide which lead indicators to use. Lead indicators also manage to cause impassioned debate as to the validity of the measure at all. To continue the debate further, lead indicators regularly require funding to execute an advantage before an outcome can be shown by lag indicators (Jonathan & Colley, 2014).

According to (Gonzalez, 2016) and take similarities to the case company leading indicators include:

- Several visitors come to a website
- Amount of time spent on this website
- Amount of sales from a customer per week
- How the websites performing
- Opportunities added
- Opportunities lost
- The number of discounts sent.

By using correctly leading indicators, the high-risk companies can specify whether the actions they are executing are being effective. And why the desired result has or has not been. So that leading and lagging indicators together trace causes and paths of influence.

Lagging indicators: History says the most frequently used indicators are those that measure “after the fact” information. That means using indicators after getting an output. These indicators are mention as lagging indicators. Lagging indicators always measuring the outcomes, they are tools that identify the problem. They have been very beneficial in defining instant cause and effect. In this way, they offer the opportunity for 'lessons learned'. The matter is the learning only happens when there is an actual event (Gonzalez, 2016). Lag indicators measure "unsafety" then the lagging indicators must be the focus of attention not only for data collection and measurement also having been driven by frequently reporting (Jonathan and Colley, 2014).

Outcome indicators: This indicator numerically counts a program’s actions or products that were created or delivered, the number of people served, and the activities or services provided. Such as, a training program that provides graduates. A specific effort might yield information such as white papers or studies. Homeless people’s shelter creates filled beds.

Generally, describe outputs with numerical form. For example, we filled 97% of available beds or training programs resulted in 96 graduates. Outputs are measurable and easily determined. This is tempting to stop with outputs because they are quite easy to build. It needs just count. How many people did serve, how many meals did dish out? But organizations should try to achieve the next level of outcomes and impact (Fritz, 2020).

Quantitative KPIs

Quantitative indicators indicate a quantity. The quantity can be an index, a number, ratio, or percentage. Quantitative indicators are very broadly used in development projects as they provide an entire measure of things and are numerically comparable. This allows project officials to compare the performances of two or more projects. As well it also acknowledges them to compare the statuses of the same project at times (Worthy, 2016).

Typically, quantitative indicators are offered as they do not need feelings to quantify them. They only need some mechanical procedure that is theoretically expected to provide similar results and no matter who computes them.

Qualitative KPIs

Qualitative indicators are often focused more on soft skills like communicating more frequently, learning to better adjust to change, operating collaboratively with the team, and so on. Maybe it is not looking fair to guess these skills, but that is why it is necessary to set expectations with employees, so they get to know what you anticipate.

Be straight about how employee's goals will be measured, be it quantitatively or qualitatively, and if it is the latter, and explain how the organization will use "manager observation" to clarify success. Performance goals and reviews should be used as a tool to help employee's skills and grow and to help organizations thrive. They should not observe such as beating or burden. Is about goals and how they will be measured and the better the process will be for the team, leading to overall business success (Worthy, 2016).

3.5 Retailers'

A retailer is an entity that sells goods such as appliances, furniture, clothing, groceries or cars, or any other products directly to consumers through different distribution channels with the target of earning a profit. A retailer is also called a merchant. This retailer can operate in a physical store or online or both together. Retailers are facing the consumer as a part of the supply chain, and most of the people connect with them intermittently. They arrive in all various, types, designs, and sizes (Hudson, 2020).

Retailers frequently buy products from a wholesaler, manufacturer and then resell them to the consumer. The big or large retailers purchase products in huge amounts from wholesalers or manufacturers. But some small shops or a few local grocery stores can buy from the same distribution channel or smaller manufacturers. Retailers make a profit by resells their goods to the consumer at a markup-the difference between their resells price and the purchase price.

Retailers sell different type of goods, but mostly they are serving goods including:

- Food
- Hard or durable products (such as furniture, cars, etc.)
- Soft products (such as clothing or footwear etc.)
- Electronic products (such as a computer, phones, or some digital appliances)
- Art goods (such as art supplies, books, musical instruments, etc.)
- Grocery (which we need every day).

3.5.1 How Retailers execute their business

Retailers must be set up to sell precisely to customers in some pattern or another. This concern not only decisions but also about physical and online market but depends on how the customers connect with the market (Hudson, 2020).

Most advanced retailers usually set-up their strategic plans based on the following:

- Store type (such as a major national chain or small stores in particular cities or online only)
- The retail served (such as exclusive goods consumers vs. affordable goods consumer)
- Best product collection (e.g., good quality product with a various brand)
- Customer service (e.g., supporting customer physically in the store vs. supporting customers with calls, emails, or in social sites conversation)
- The positioning of the market (e.g., usually for physical stores).

3.5.2 Types of retailers

The stores, who buy goods from a wholesaler and resell it to the customers are not only the retailers. There are massive numbers of small single-person ventures selling their products online. Fewer traditional enterprises count as retailers. For instance, a baker who sells homemade bakery products in a store or a fair is also considered a retailer, if the baker is selling products to customers to earn a profit.

Retailers are not only in the business of selling goods, they are also service providers. For instance, the consumer electronics chain Best Buy has a Geek squad department in its retail outlets that attempt repair services for the goods it sells. More, the Geek squad makes online customer services operation for their customers (Best Buy, 2020).

Here is a list of the general retail form or types:

- Brick and mortar (e.g., a physical store)
- Online
- Digital box (such as Alza box, Mall box)
- Kiosk
- Catalog (this is referring to a business operated completely through a print or online catalog)
- Pop-up (i.e., this is a temporary store that is especially popular during the holiday season)
- Special event (it refers to shows such as fairs or campaign)

Nowadays, retailers must sell in more than one kind of retail channel to gain success. For instance, Alza has different types of the channel such as physical stores, Online. For that reason, a customer could choose their reasonable channel. Today's customers prefer to have various options to purchase from their favorite brands.

3.5.3 Standards for Retailers

Standards for retail industries are approved standards for performing a retail business. They can be very effective to help new and growing retail businesses run more precisely. The two most fascinating standards are needed to operate retail business smoothly.

GS1 Standards for Retail industry

Global standard 1 (GS1) is focused on supply chain management, construct primarily around the GS1 number system used in Universal Product Codes (UPC). Typically, the system upgrades productivity by allowing retailers to maintain check-out and inventory systems electronically. It helps with much critical information by communicating with the supply chain from manufacturing to retail (Gs1, 2020).

ANSI Standards

American National Standards Institute (ANSI) certified the standards for interchanging electronic data over a wide range of retail industries. These standards notify the best-operating methods of plenty of retail businesses. Such as, Electronic Data Interchange (EDI) is a document standard that accepts for coordination across two or more computer programs at a different location (Ansi, 2020). This standard facilitates a retail business to transmit request information from a website or an online shop to a warehouse or distribution center. So that all the retail industries should be familiar with ANSI standards (Ansi, 2020).

3.5.4 Important KPIs for retailer's website

KPIs are must be needed for any kind of retailer to measure the performance of their websites and visualize or tracking strong and weakness of these websites. Without using KPIs it's impossible to improve their business. So that KPIs are mandatory. According to the research of (SimilarWeb, 2020), Using the following KPIs retailer websites can track their performances.

- Total visits
- Average visits duration
- Pages per visit
- Bounce rate
- Traffic by country
- Traffic sources
- Direct sources
- Referring sources
- Search
- Social
- Display Advertising
- Email

Total Visits: A visit is counted by one individual visitor who comes to the website and continues to browse. It counts all visitors, doesn't matter how many times the same visitor may visit that site (Tendency, 2020).

Total visits are formulated by the total number of unique visitors on a page. This metric gives websites insights into the popularity of the sites. Most of the companies reporting frequency are monthly based (Klipfolio, 2020).

Average visit duration: A research of (Nielsen, 2011) illustrated that how long will visitors stay on a webpage before leaving?. In his research reported that the average visit of a page is less than a minute. It depends on the website's categories. Visitors are always in a hurry when they are browsing on an individual page, sometimes they bounce away immediately or sometimes spend more time on it. That's the reason companies are calculated the average visit duration for analyzing their sites. The formula of average visit duration is (total duration of all visits/number of visits).

Pages per visit: The website's analytical measure of how many Web pages a particular visitor or group of visitors' views on a single website. Pages per visit are generally visualized as an average, which is formulated by dividing the total number of page views by the total number of visitors.

Bounce rate: In internet marketing terminology, bounce rate is correlated with the company's website traffic analysis. The rate expresses the percentage of visitors that arrive at the site and leave versus those who arrive and view multiple pages (CFI, 2019).

The bounce rate helps a company better understand how sticky their websites are, and how well it manages its visitors' interest. Lower bounce rates are more effective to attract their visitors and controlling them around to view multiple pages.

The bounce rate calculation formula is:

$$\text{Bounce Rate} = \frac{\text{Total One - Page Visits}}{\text{Total Website Visits}}$$

Source: <https://corporatefinanceinstitute.com/resources/knowledge/other/bounce-rate/>.
Accessed 02 February 2021

Following (Openupweb, 2020), the Excellent bounce rate is under 40%, and then if the bounce rate is under 58% considered a good bounce rate. And higher than 70% may be cause for making changes.

Traffic by country: How much traffic is coming from different countries that have been called Traffic by country. Companies are sorted their visits by country to understand their activities in particular countries.

Traffic sources: Traffic sources are the way wherefrom the Visits come. This is a vital way for any website. Traffic sources break down by several KPIs. Such as direct sources, referrals, search, social, display, and email, etc. (Wainwright, 2019).

Direct sources: Directly accessing website results when a visitor comes straightly on a website, without having clicked on referring link on another site. In direct traffic, visitors come from different sources (At Internet, 2020):

- Suppose a visitor knows your URL and directly hits enter his/her search engine.
- If a visitor saved your site to his/her bookmarked as a favorite site on the browser.
- Clicks on a link from an email (URL shared by a third party).

Referring sources: If any site sending traffic to companies' website via an inbound link then it's taken as a referral's source. Sometimes it could take social media websites as referrals, sometimes might not. It might be varied on what kind of KPIs tools are being used. Generally, Referrals are divided into two categories such as referring sites and destination sites.

Search: Search obtained the results from the Search engine such as Google, Yahoo, Bing, Ask, and others. Search is categorized any Organic traffic and Paid traffic.

Social: when the visitors get the link from some social media such as Facebook, YouTube, WhatsApp, etc. then it will be bucketed under the social media sources. Suppose a user sends/shared a product link on Facebook and other users received the link and clicked to visit the following products.

Display: in online marketing, Display traffic is the traffic where the website got from display advertisement. It can be made up of any quantity of traffic sources if the intermediate of the traffic sources is one following (Sharma, 2021).

- Display
- CPM
- Banner etc.

Display traffic is also divided into two ways such as publishers and advertising networks.

Email: When a user registered on a website, he needs to provide his/her email with accepting cookies. After that companies send to their users about their products and offers. If a user clicks from a link that is provided by the company then is counted in the section of email traffic.

Most of the retailer is following all these KPIs to run their business perfectly.

3.6 Tools for KPIs

Measuring and tracking KPIs for businesses, many affordable tools can fit into the most popular business software solutions and making KPIs tracking simple. Depending on the companies' business model, the same tools might be a better fit than others.

The top five excellent KPIs measurement and tracking tools are given below:

1. Geckboard

Geckboard is an easy and smart KPIs tool. It provides a live tracking dashboard for companies. This is built with smooth features. It features a drag and drop interface which is allowing users to design their visual dashboards across a range of metrics.

Geckboard allows users to present full-screen dashboards on a TV screen and is an attractive choice for companies that prefer to keep their teams laser-focused on the findings. Designed for fast-running teams that struggle to focus their business on the most important part. Geckboard coordinates with all the most popular companies' software such as Google Analytics, Shopify, and Salesforce.

The software collects data directly from users' business sources (or Excel spreadsheets) to build visual dashboards for their companies. Set-ups for these tools are very simple and time-consuming.

2. Salesforce

Salesforce is one of the most preferable solutions for measuring and tracking KPIs. Salesforce allows users to create personal dashboards for their business as a whole or a particular employee in their business. The platform aims to unify marketing, eCommerce, inside sales, and service into the same platform. So that companies have a comprehensive view of their customers and a way to reach them.

The top features of Salesforce are (Taylor, 2020):

- AppExchange
- Customer Cloud
- Marketing Cloud
- Collaborative Forecasts
- Workflows

3. Tableau

Tableau is an excellent KPI tracking tool with a wide range of pre-built KPI templates for companies to track their business. This is a special software for retail and eCommerce. It has real-time data blending features.

Tableau directly connects to the users' business database, then visualizes insights in real-time. It can also plug data from various sources such as pulling from salesforce, Analytics, or Excel. It has lots of wonderful features from creating personal dashboards for business.

4. SimpleKPI

SimpleKPI is a great KPI tool for start-up companies. This is very easy to use. That means is not that it lacking its power, it is a simple but smart and effective KPI tracking tool. This can be tracking a wide range of metrics including marketing metrics, financial metrics, operational metrics, and service metrics. It is a complete package for almost any type of business.

SimpleKPI provides 24/7 support to its customers. It offers several popular software packages. It has full-screen option features for the user to display KPIs to their teams in real-time.

5. Asana

Asana is an amazing tool for simple, project-based KPI tracking tools. Asana allows to track tasks, projects, conversations, and creative dashboards.

Their dashboards provide a wide range of tactical analyses that can use to measure progress across each project.

4 Practical part

In this research, the main objective is to analyze the performance data of selected businesses including the retailer's website. Following the main objective, the practical part has been determined to select two Czech retailer's websites to analyze their performance. The selected two companies are Alza.cz and Mall.cz. According to the partial objectives, evaluating certain parameters and analyze both websites by using selected KPIs to provide useful information to improve their performance and propose recommendations to resolves their possible issues.

Collected websites' analytical data to analyze both retailer's websites and comparison between them. It has used for measuring the website's performance results and helping to improve their achievement.

Both websites are measured by some selected KPIs. The author has selected the 12 most important KPIs for tracking both websites.

1. Total visits
2. Average visits duration
3. Pages per visit
4. Bounce rate
5. Traffic by country
6. Traffic sources
7. Direct sources
8. Referring sources
9. Search
10. Social
11. Display Advertising
12. Email

By those KPIs, both sites will visualize their analytical data in the particulars KPI fields. Those KPIs will demonstrate the results and performance of retailer's websites. Then those results will formalize in KPI tracking tools and build dashboards for both websites. And the dashboards have displayed the performance of those selected KPIs.

4.1 About Case company Alza.cz

Alza.cz a.s., is a popular Czech seller of various products such as computers, home appliances, electronics, etc. this is a retail company. This company provides a wide range of product catalog and mainly holds the maximum possible quantity of products in stock. And their products are available for instant collection or dispatch to the customer's address. Alza started its journey in 1994 and its customers are the end-consumers, but an equal priority for corporate clients. The key selling medium is a combination of the same name online shop or e-shop **www. alza. cz** and have a broad network of branches all over the Czech Republic.

Alza.cz is leading long-term period in the Czech market. And an innovator around an online shop. Alza.cz gained this position because of their high technical standards for the online shops, they have huge stock levels, and finally a particular approach to the customers and willingness to meet their preferences with affordable cost. All this makes Alza.cz a strong and dependable partner for both customers and large companies.

Alza.cz always look after their values which are:

- Professionalism
- Speed
- Innovation
- Respect
- Cooperation
- Ecology

This is a retail company and the biggest shop with electronics and the biggest online shop selling their various products in the Czech Republic. The success factor of Alza.cz is the massive range of products that are available for immediate collection or home delivery to the customers. Best e-shop with modern tools for shopping. Digital logistics background with huge storage area that's more than 12000sqm.

It has a digital cash desk controlled by a computer which is Alza PayBox. A big team of more than 300 professionals in their specific field. A huge network of branches all over the Czech Republic. Alza.cz provide customer services to the customer. They cooperate with suppliers and manufacturers in the field of business, marketing, and design of product solutions made to the customer's needs.

It has more than 36000 types of products. A wide range of service providers such as financing, technical support, home delivery, product installation, daily special price for selected products.

Marketing strategies

Alza.cz prepared their marketing policies very carefully and it builds on close collaboration with suppliers and manufacturers based on their brand and product promotion. Marketing activities of Alza.cz include collaboration with an experienced marketing team and creative group, market analysis, and other tools.

In-Store activities

- New events, special offers in the Showroom
- Displaying their partner products.
- Mailing events/campaign
- Banner campaigns in the showroom
- Website competitions
- Merchandising

Co-marketing activities

- Banner campaigns on websites
- Campaigns advertise for Alza.cz in Television
- Promotion in daily newspapers or social media
- Radio campaigns
- Billboards, CLV areas, and mega sheets
- Advertising in Public transport
- Event sponsoring

4.2 About case company Mall.cz

Mall.cz is an online shopping sites with nationally focused sales. Their sells are generated almost totally in the Czech Republic. Mall.cz was launched in 2000. It has also physical stores and a showroom. It offers to their customer's instant pick-up from the store or delivered to their home address.

The company has more than 45 e-shops in the region with more than 1200 product categories. It has different categories such as Furniture & Appliances, Electronics & Media as well as Toys, Hobby & DIY (EcommerceDB, 2020).

Mall.cz is an online retail platform arranged to trade daily needed goods or products. They are selling white goods, electronics, household appliances, and furniture, toys, health, and beauty products as well as other consumer products, offering customers to purchase their preferable products and get them delivered at their doorstep (PitchBook, 2020).

Mall.cz provided modern e-shops for their customers and offering a huge catalog with different categories of products. Mall.cz offers 1200 product categories. It has professionals for helping customers in the showroom and branches all over the Czech Republic. It's a great customer service provider. Provided services such as financing, technical support, home delivery, and product insurance, etc. Regularly offer a special price for selected items.

Marketing strategies

Cooperate with suppliers and manufacturers based on their brand and product promotion. Marketing activities of Mall.cz include collaboration with an experienced marketing team and creative group, market analysis, and other tools.

Co-marketing activities

- Advertise on website
- Campaigns or events on television
- Advertise on public transport and newspapers
- Billboards etc.

4.3 Analyze and Comparison between two companies by using KPIs

This is the main section for the practical part, the reason is both retailer's websites are compared here by using the same KPIs to draw their divergence on a specific area. According to the objective of this paper, analyzing and comparing the analytical data from Alza.cz and Mall.cz.

4.3.1 Websites overview

Websites overview is organized by defining some key performance indicators (KPIs) such as Total visits, Average visits duration, Pages per visit, and bounce rate.

Implementation of those KPIs in selected case companies. The results are bellowed:

Table 2: Websites overview

KPIs	Overview	
	Alza.cz	Mall.cz
Total visits	24.7M	11M
Average visit duration	0:08:45	0:06:35
Pages per visit	8.58	7.25
Bounce Rate	28.47%	36.71%

Source: www.similarweb.com

According to table 2, Results of total visits, average visit duration, pages per visit, and bounce rate are displayed that Alza.cz has a better position than the mall.cz. But both companies have an excellent bounce rate. The reason for differences between the two companies might vary on their strategic policy for running the company and provided services (Jansen, 2009)..

4.3.2 Total visits of Alza.cz and Mall.cz

Total Visits is metric and it's used to measure the total number of times a user navigates to a website. The Visits metrics are important online marketing that is used in a company with conversion rate to the performance indicators of an online store.

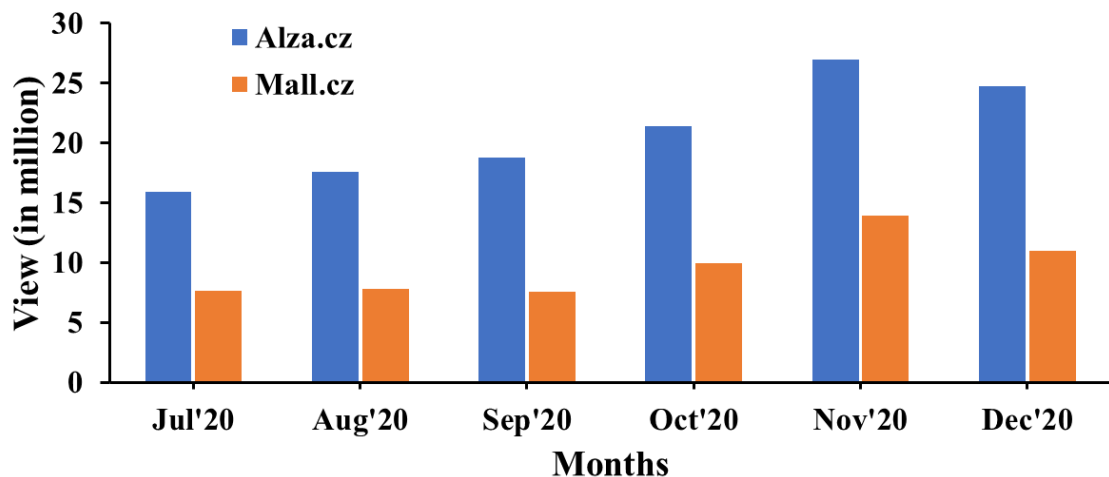


Figure 3 Total Visits (Alza.cz and Mall.cz)

Source: www.similarweb.com

In the Czech Republic, Online markets are influenced by many reasons such as weekends, Public holidays, summer vacations, winter vacations, and Festivals. And with some uncertainty such as natural disasters and some epidemic measures. And influenced by Traffic sources, traffic by country, and some other KPIs.

Following figure 3, both companies have the lowest number of visits in July according to their monthly total visits results in 6 months observation period. But Mall.cz has scored fewer visits in the whole observation period than Alza.cz. The ratio of monthly visits in this period is quite similar. This ratio is not the difference between two companies it's the ratio of a difference between one month to another month in the selected observation period. This variation can be for holidays, festivals, and current epidemic situations such as Covid-19.

Most visits are recorded for Alza.cz in November. Mall.cz has the same results as Alza.cz. The winter season is started beginning in November. At this time people are getting busy with their work so that they have limited time for hangout or going outside for shopping. At that time, they relay's on online shopping. So that more visits are recorded in the last 3 months in the observation period.

4.3.3 Traffic to Alza.cz and Mall.cz by country

Visits are an important measurement of a retailer's online store's ability to draw in users. But like any web metric, it cannot be viewed in a vacuum. Visits are dependent on various external factors and internal online marketing strategies. Some considerations are there, out of them one of the important considerations is Traffic by Country.

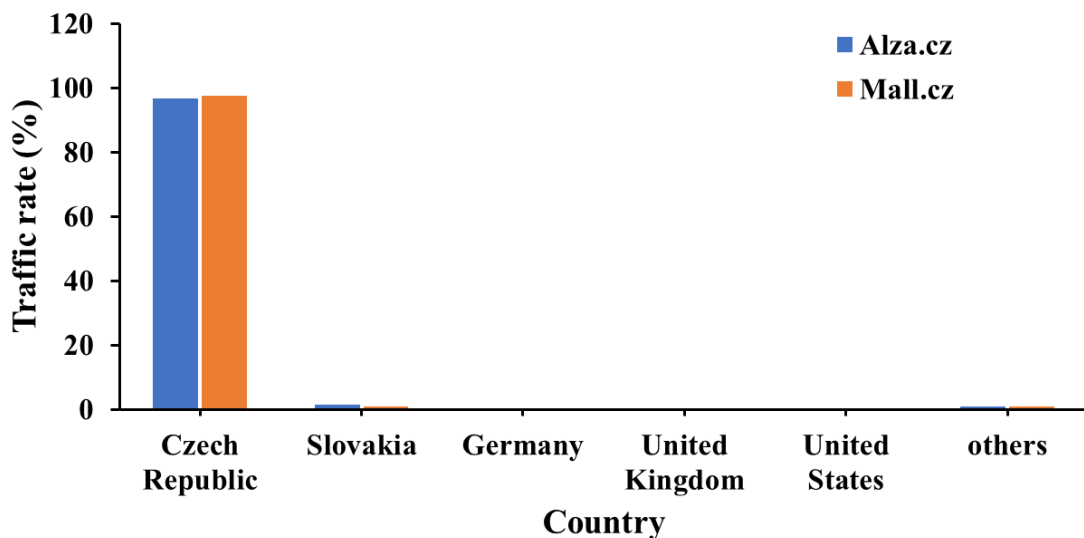


Figure 4: Traffic Sources by Country

Source: www.similarweb.com

Traffic comparison by country has reported similar results (figure 4). Results are illustrated that both companies are focused on the Czech Republic. This comparison has figured out both companies' customers from the Czech Republic. They have a fewer number of customers from other countries such as Slovakia, Germany, the United Kingdom, and the United States.

4.3.4 Traffic Sources

Traffic sources are the way wherefrom the Visits come. This is a vital way for any website. Generally, traffic comes from some different key-indicators they are Direct, Referrals, Search Social, Mail, and Display.

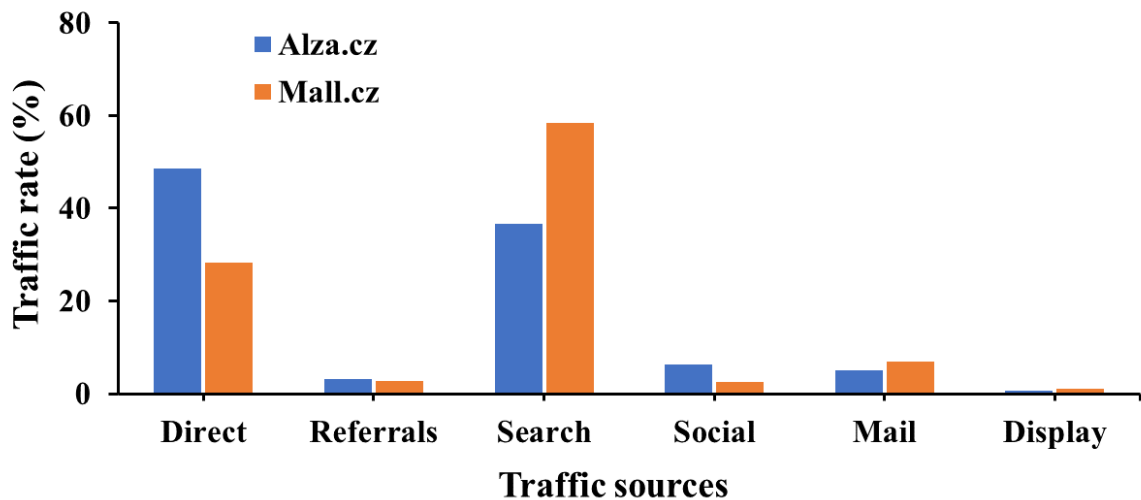


Figure 5: Traffic Sources

Source: www.similarweb.com

Following figure 5, Alza.cz has obtained maximum traffic from the source of direct KPIs. It is demonstrated that it's a prominent site for their consumers. Search KPIs in the second position. That means Alza.cz also concentrates on their search algorithm as a search engine. Without those two KPIs, it has several KPIs which also important for this company to achieve its goals. Other relevant KPIs are Referrals, Social, Mail, and Display advertising.

Mall.cz received the highest number of traffic from Search KPIs. It is proved that Mall.cz are very actively managed the performance of their searching keywords. They have perfectly organized theirs search engine algorithm. Direct KPIs have taken the second position. Mall.cz have more effective traffic sources KPIs such as Referrals, Social, Mail, and Display advertising.

In traffic sources, both websites followed particulars strategy for their retail's websites. They have focused on different KPIs. For example, Alza.cz is more focused on direct KPIs. It proves the popularity of the website to their consumers. On the other hand, Mall.cz focused on Search KPIs. This illustrates that Mall.cz concentrates on marketing by keyword searching.

By the following consideration, both companies should focus on other KPIs. Those KPIs also take a big part to bring more visits on their website. And Mall.cz required to concentrate on Direct KPIs. Because it tells how suitable your websites to your consumers.

4.3.5 Referrals

Referrals sources could mean a lot of things because the definition of these sources is so simple. If any website sending traffic to a company by the way of an inbound link then it is called Referral sources (Wainwright, 2019).

Referring sites: Used to denote incoming traffic on websites because of clicking on a URL from some other website, that's called referring site. Referrals traffic always has referring sites, on which this stream of traffic originates. According to (The Economic Times, 2021) typically, any domain that originates and redirects traffic to your domain is known as a referring site.

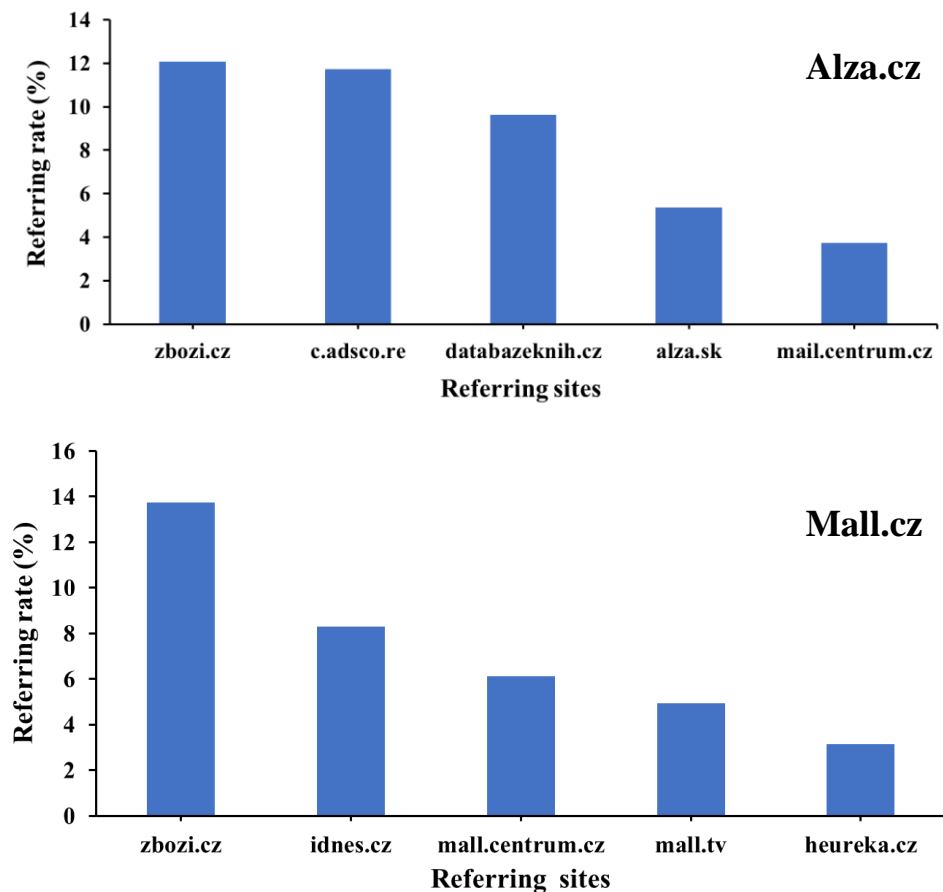


Figure 6: Top 5 referring sites Alza.cz and Mall.cz

Source: www.similarweb.com

From figure 6, Top referring sites are a part of Referrals KPIs. Alza.cz has several referring sites which are helping websites to get more traffic from this part.

This section provided the Top five referencing sites. By these KPIs, the company understood from which sites they are getting more references. The top five referring sites are zbozi.cz, c.adsco.re, databazeknih.cz, alza.sk and mail.centrum.cz. In this KPIs Mall.cz received their referring sites. Here illustrated a very positive outcome for Mall.cz. The top five referring sites for Mall.cz are zbozi.cz, idnes.cz, mail.centrum.cz, mall.tv and heureka.cz.

In top five referring sites, both websites have two same referring sites. They are zbozi.cz and mail.centrum.cz. From zbozi.cz Mall.cz recorded more references than Alza.cz and in mail.centrum.cz is opposite.

Regarding the results of referring sites both companies should regularly track those sites.

Destination sites: A destination site is a website with a combination of content and set to points, contracted to serve as a portal to the web for its users (McMahon, 2021).

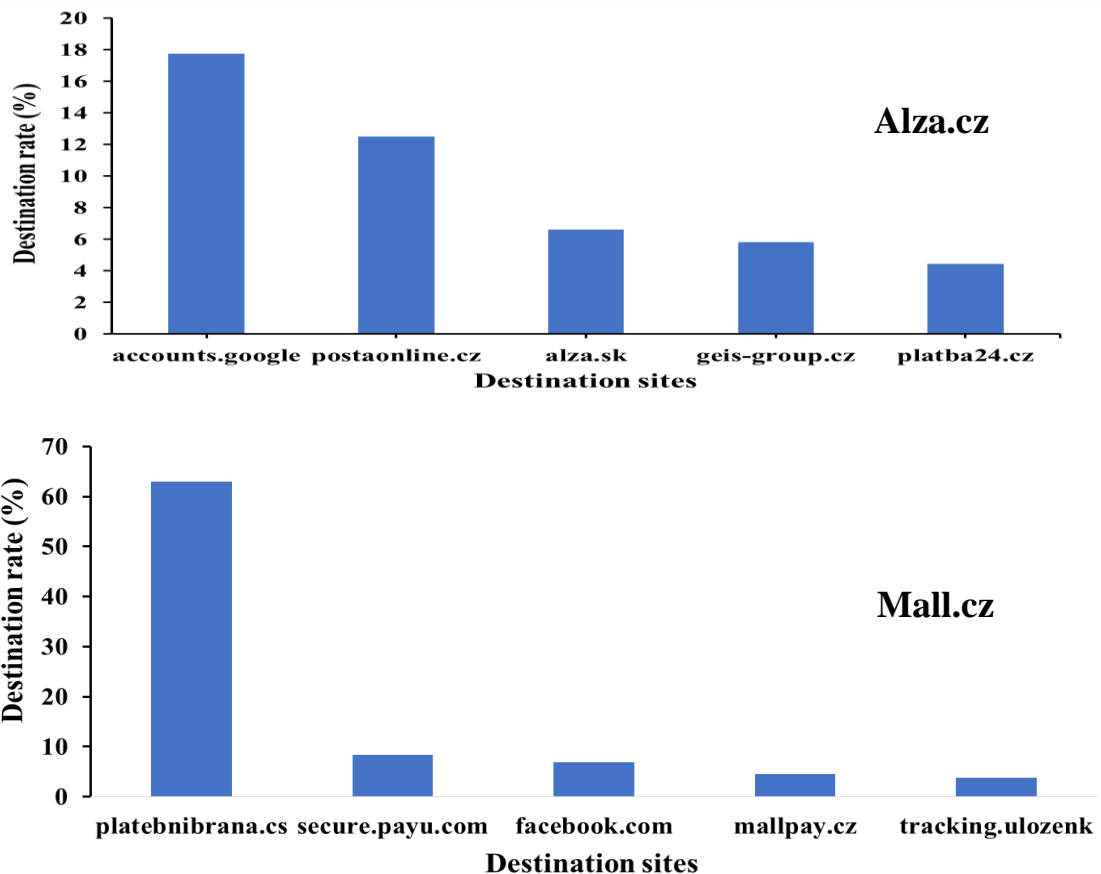


Figure 7: Top 5 destination sites

Source: www.similarweb.com

This is also an important KPI under the Referrals KPIs. According to figure 7, It provided a combination of content and set to points, contracted to serve as a portal to the websites for its users. Destination sites are not equally important as referring sites. Total visits aren't influenced by destination sites.

4.3.6 Search

Search traffic is simply described that visitors who arrived at the website after clicking search engines listing results and they searched for something and decide to browse at the website. Search traffic can be divided into two main categories are Organic traffic and Paid traffic (see figure 8).

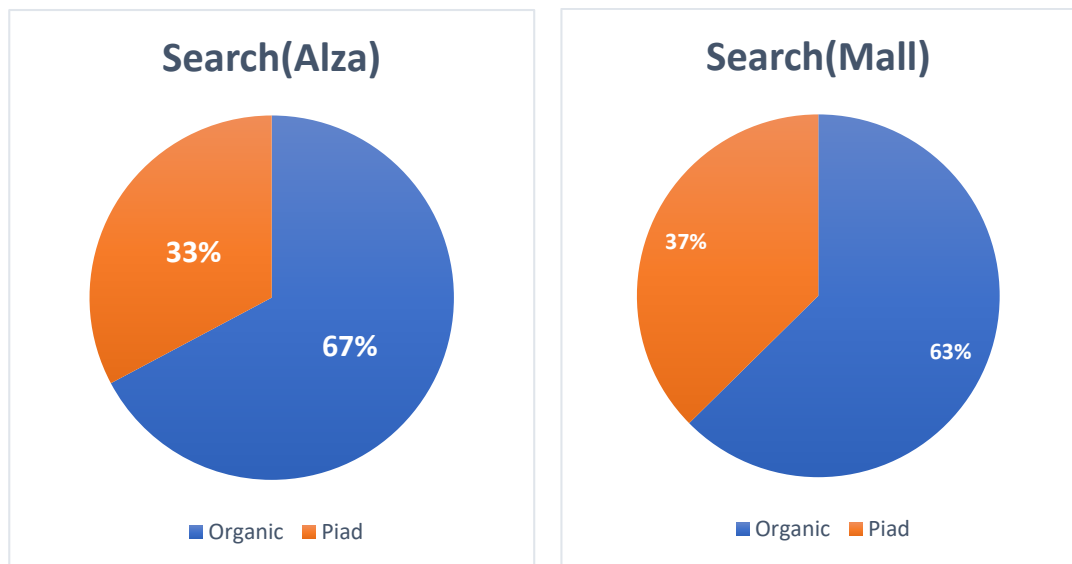


Figure 8: Search sources

Source: www.similarweb.com

Organic search: Organic search traffic is used to define the amount of traffic that came to the website via visitors who found that website by using a search engine. Organic keywords results are those which come from the algorithm by using a search engine. To get information by using some keywords. Following figure 9, to buy some products from Alza shop, users use some keywords such as alza, alza.cz, alza cz, and so on to reach the 'Alza.cz' website it's called keywords.

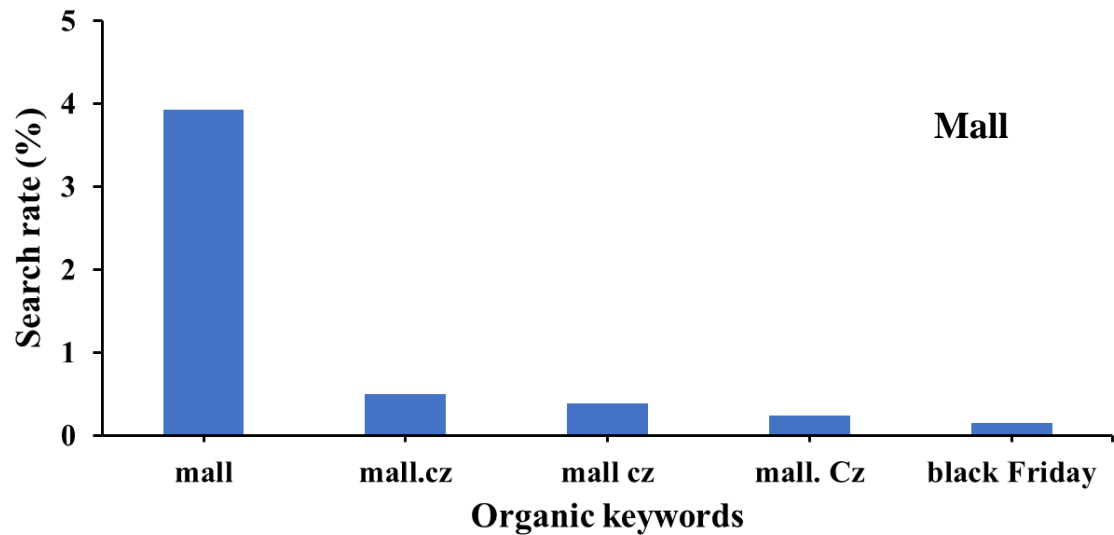
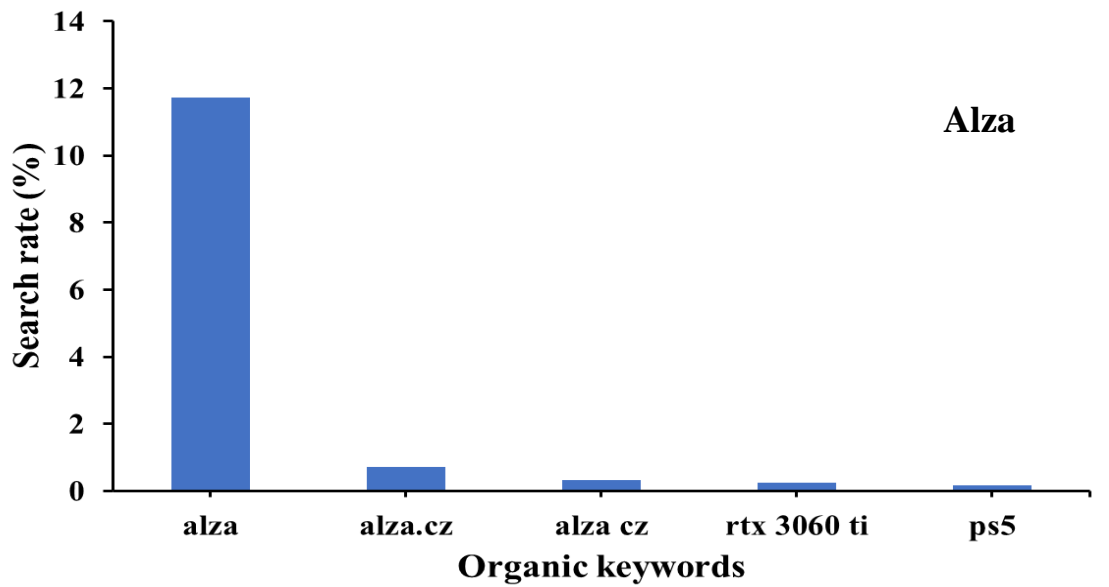


Figure 9: Top 5 organic Keywords Alza and Mall

Source: www.similarweb.com

Paid search: In digital marketing Paid a search is an important form where search engines such as Google and Bing allow advertisers to show ads on their search engine results pages (SERPs).

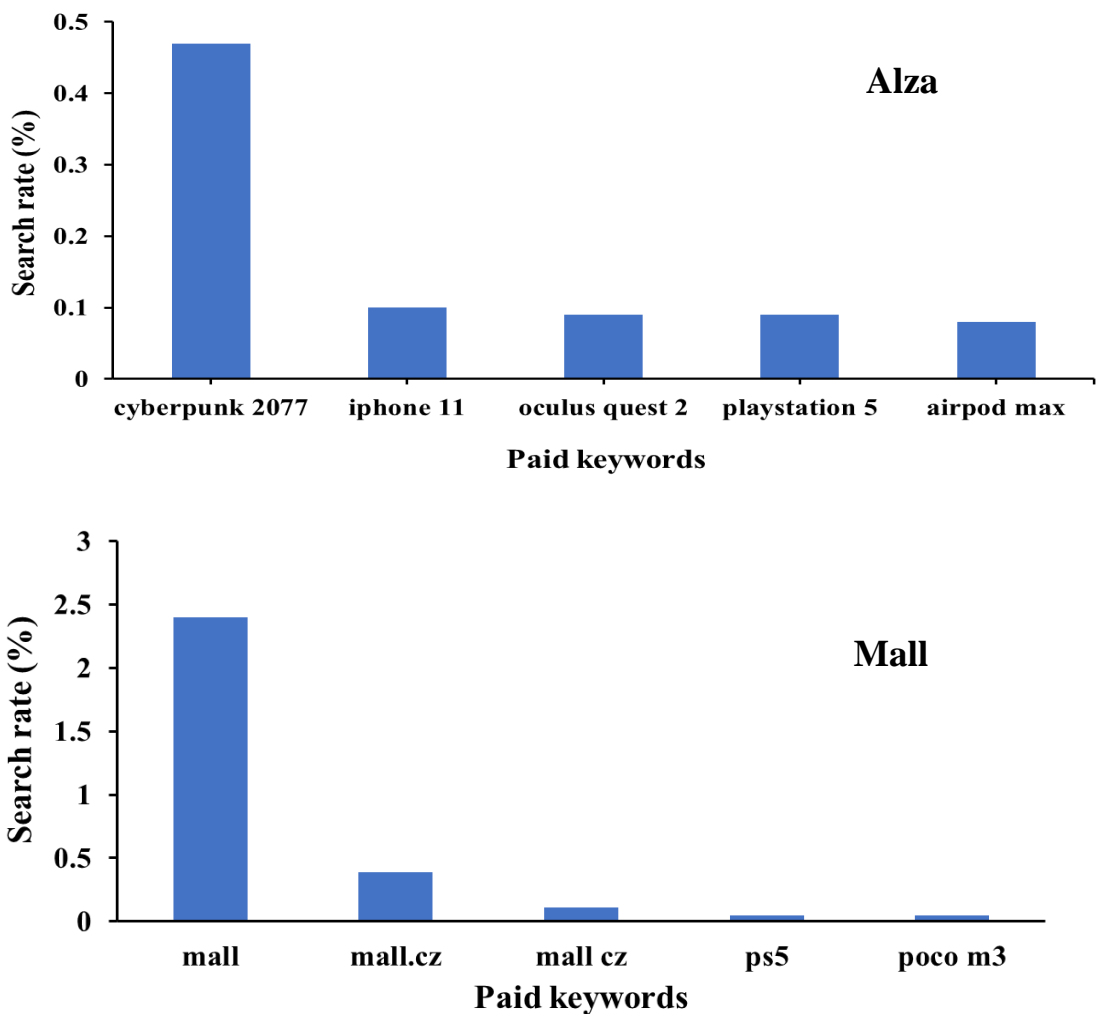


Figure 10: Top 5 paid keywords Alza and Mall

Source: www.similarweb.com

In this section Alza.cz prove their talent. Following figure 10, They paid for cyberpunk 2077, Iphone11, oculus quest2, PlayStation, airpod max. And Alza.cz is the retailer for all products.

If some customers searched for the famous game which is cyberpunk, they will get the products and recommended sites will be Alza.cz. like this, they capitalized those keywords that trending on market, and they are also the service provider for those products. On the other hand, Mall.cz capitalized their keywords. Mall.cz can follow the strategies from Alza.cz to improve not only for traffic but also for more profit.

4.3.7 Social

For advertising of any kind of business online Social media plays an important role. When someone finds websites via a link on a social network, they are marked under social media as a traffic source (Wainwright, 2019). This could include posting on Facebook with a link and tweeting someone out a link as Social media source. For instance, if you post a link to Alza's product on Facebook it is inside the bucket of social media sources.

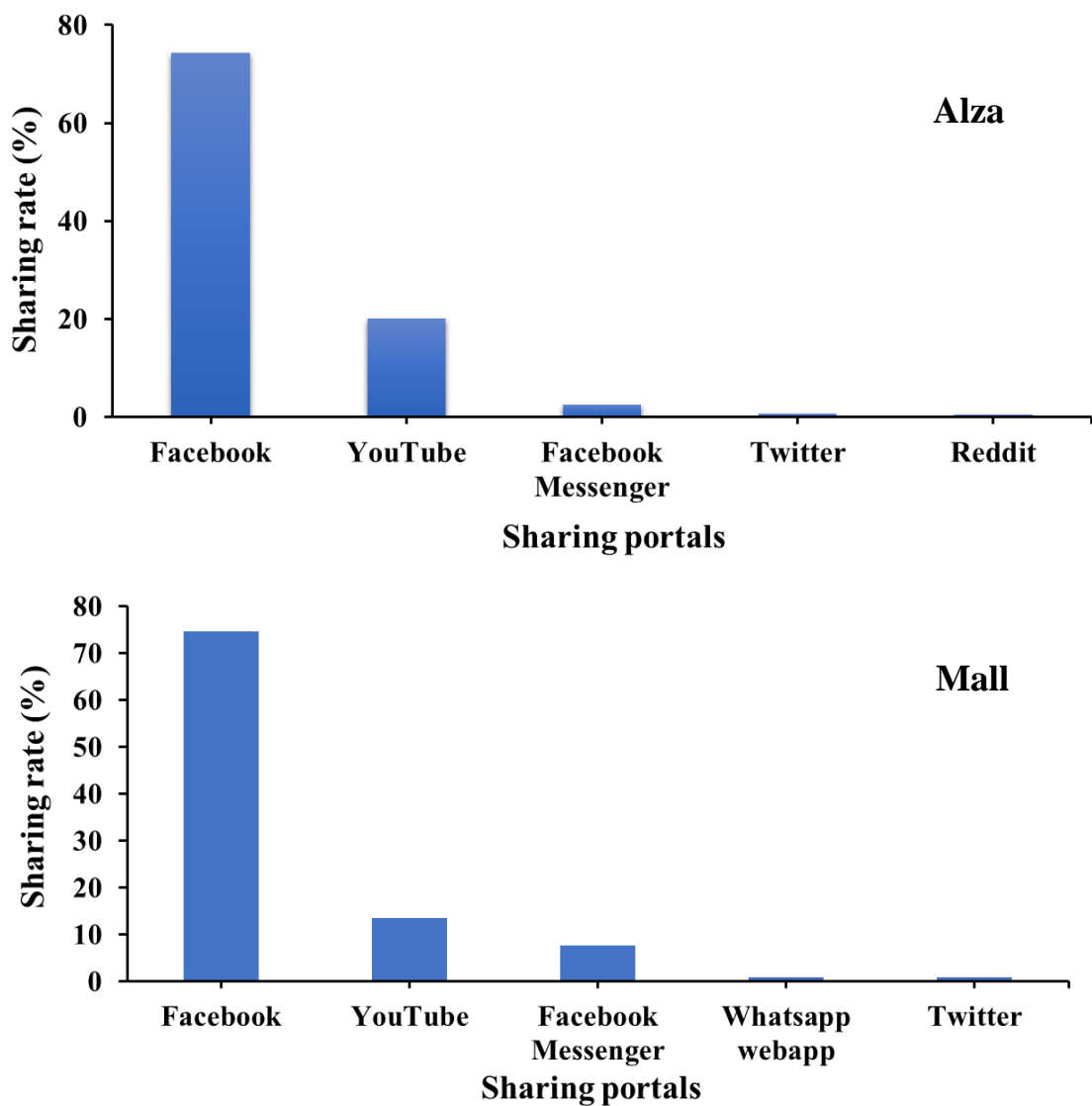


Figure 11: Top 5 social sites Alza and Mall

Source: www.similarweb.com

Nowadays retailers are more focused on Social sources. Sharing a product link to social media peoples are earning money is called affiliate marketing. Social sites are a good platform for internet marketing. There are thousands of types of social media such as Facebook, YouTube, WhatsApp, etc.

According to the results shown in figure 11, Facebook has received the highest amount of traffic in social media sources for both companies. Because on this site people share product links more than other sites. So, companies are getting more traffic from Facebook. YouTube has taken second place for both companies. Not only do these two sites provide traffic for Alza.cz and Mall.cz, but they also have more social sites to get traffic for their websites.

4.3.8 Display Advertising

Display advertising is a form of advertising it's also called banner advertising that conveys commercial information visually using text, photographs, logos, animations, videos, or other graphics. Display advertisers usually target users with precise traits to increase the advertisement effect.

Publishers: A publisher is a person, a company, or an organization that oversees connecting the advertiser's product with the final user, as they are the traffic provider.

Table 3: Top 5 Publisher

Top Publisher	
Alza.cz	Mall.cz
1. youtube.com	1. idnes.cz
2. idnes.cz	2. spotrebitelskytest.cz
3. novinky.cz	3. youtube.com
4. seznam.cz	4. testy-spotrebieu.cz
5. nova.cz	5. mail.google.com

Source: www.similarweb.com

Advertise network: this network is controlled by a company or organization that shows Advertise on their sites to attract the user to visit this Advertisement.

Table 4: Top 5 advertise network

Top Ad Network	
Alza.cz	Mall.cz
1. Google Display networks	1. Adform
2. RTB house	2. conversant media
3. Criteo	3. Google Display Network
4. Gemius	4. Gemius
5. Adform	5. Criteo

Source: <https://www.similarweb.com/website/mall.cz/?competitors=alza.cz>. Accessed 02 January 2021.

4.3.9 Email sources Alza.cz and Mall.cz

When a company runs an Email marketing campaign, with some product links in that email that manages to recipients back to this website for more information. And then this way of Email marketing goes into the bucket of Email sources in the boundary of Traffic sources. Alza.cz has 4.98% of Traffic from Email sources (SimilarWeb, 2020).

4.4 Creating dashboards by using KPI tools

Dashboards for Alza.cz and Mall.cz by using **Geckboard** KPI tracking tool. This dashboard was created by analytical data from Alza.cz and structured with several KPIs such as Total Visits, Traffic sources, Traffic sources by country, Search, top 5 organic keywords, top 5 paid keywords, top 5 referring sites, and top 5 destination sites. Here, the top 5 organic keywords and top 5 paid keywords are under Search KPIs, and the top 5 referring sites and top 5 destination sites are under Referrals KPIs.

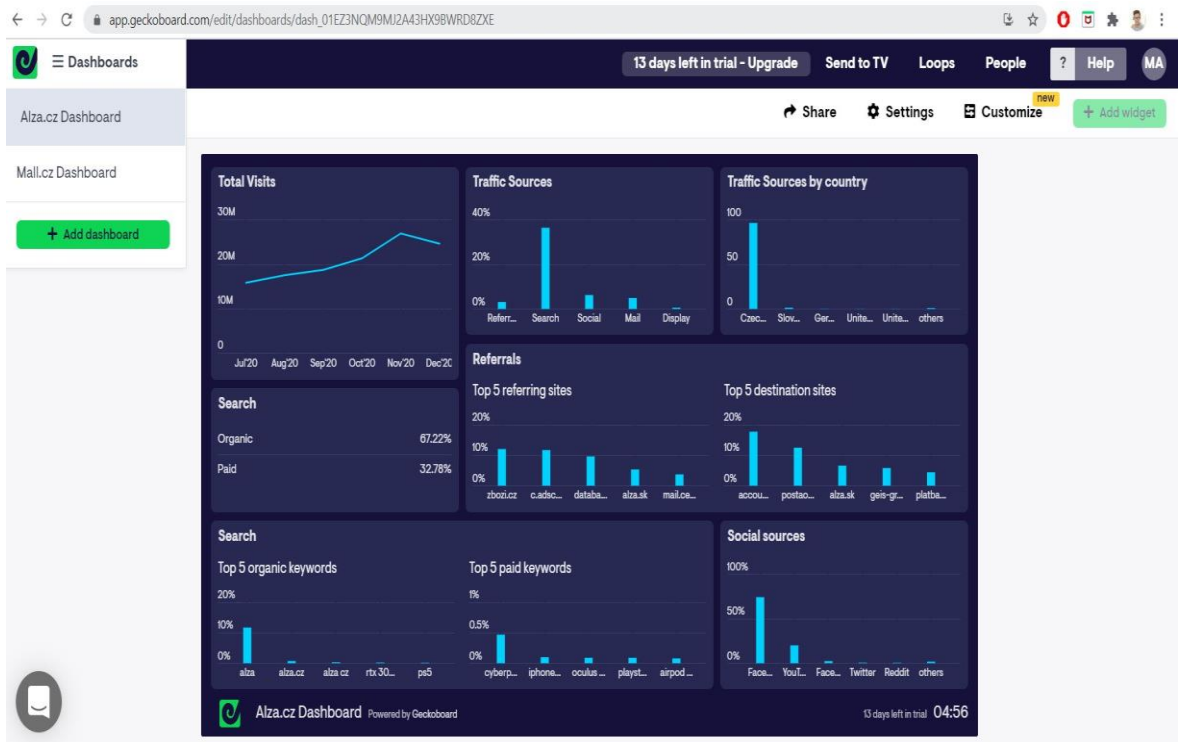


Figure 12: Geckboard Dashboard preview (Alza.cz)

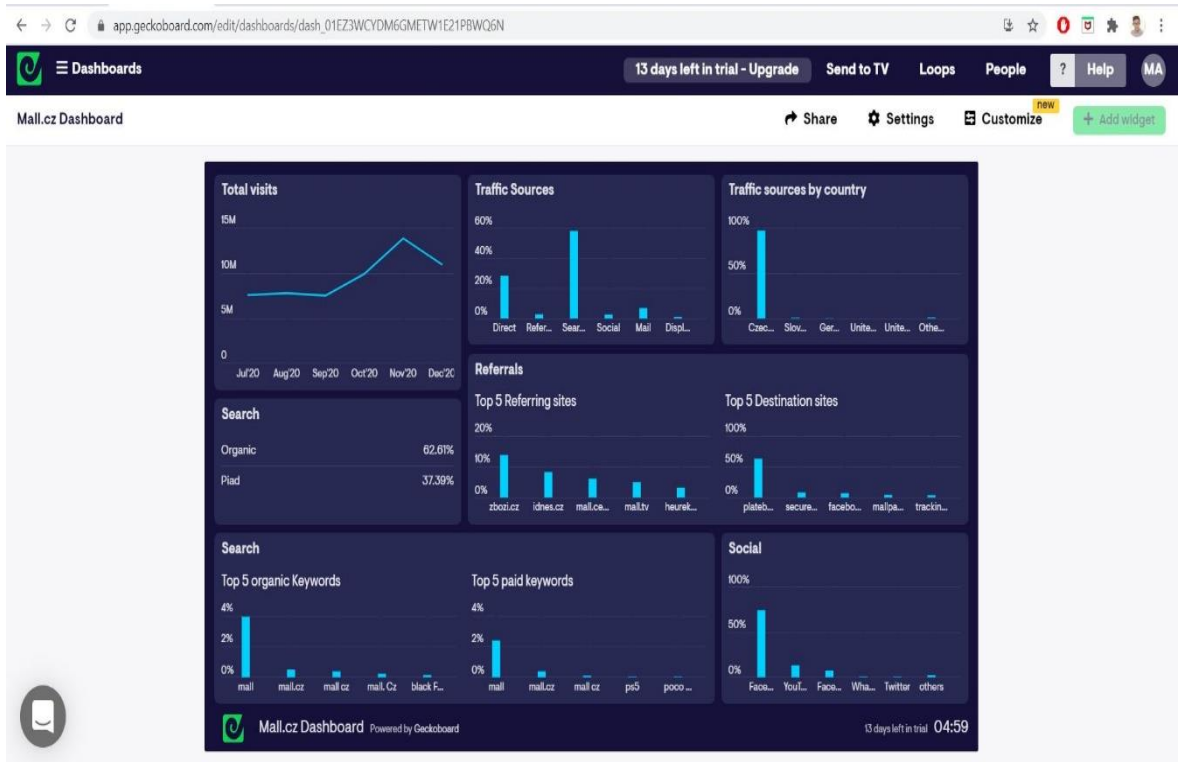


Figure 13: Geckboard Dashboard preview (Mall.cz)

In those dashboards (figure 12, 13), all the analytical data are visualized with the real-time update by updating their sources. All the Important KPIs appear in dashboards. This great for Alza.cz to track their KPIs performance.

4.4.1 The benefit of reporting Dashboards

KPIs reporting can smoothly communicate with the progress of a company approaching its performance goals. The managers not only can access key results in an instant and transparent way but also make informed strategic decisions.

Following (Team, 2020) benefits of dashboard reporting for a company. There are:

- Help to measure and track the results
- Help to construct retailer's business goals
- To find issues in websites operational strategy
- Explore KPIs strengths in strategy
- Adjust marketing and sales efforts for retailers
- Save business expenses
- Set motivation for teams to reach the target

Dashboards helped both companies to execute their strategy in an effective way (Team, 2020). Three important factors are:

Manage results: To set goals, objectives, KPIs, and generate their periodic measures. It has been distributed to employees. To arrange a review meeting and represent the results score.

Manage effort: It describes in several ways such as projects, plan initiatives, jobs, progress monitoring. And linking strategic methods to generate effort scores.

Create visibility: Provide the insights of corrective actions to illustrate the interaction between results and efforts. Also, generate smart dashboards for business.

5 Results and Discussions

Following the outcome from the practical part are described in this section. The brief description of the website's performance for case companies are presented individually to understand their internal behavior. And analysis of their strength and weakness.

Alza.cz: Following the overview of the website, implemented performance results of its specific indicators such as total visits, average visit duration, pages per visit, and bounce rate. Alza.cz has recorded 24.7M visits in the last month of the observation period. In the national view, it has a wonderful average visit duration. It has obtained 8 minutes and 45-second average visit duration and satisfied the interaction between websites and users. Results presented that 8.58 pages were visited by a user on average. And the crucial for companies to measure the bounce rate of their websites. Alza.cz has a great bounce rate which is 28.47%. According to (Openupweb, 2020), It appears "Excellent" results for its websites. Traffic sources KPI and sources by country are the most important part to increase their total visits. Regarding the outcome of traffic sources, Alza.cz has reported the most earning source is direct traffic. The website received 48.50% visits from direct traffic. Also, search traffic has taken the second position by earning 36.54% visits. The rest of the visits are coming from referrals, social, mail, and display advertising. Total Visits and traffic sources can be influenced by country.

Recommendation for Alza.cz has desired to focus not only nationally but also internationally. In Europe, every countries business can run all over Europe very easily. So, Alza. cz can take the chance and spread their business in other countries. Then they will receive more traffic from those countries, and this will increase the total visits. Because total visits are influenced by Traffic sources by countries.

Mall.cz: According to the overview of the website, presented the performance results of its individual KPIs such as total visits, average visit duration, pages per visit, and bounce rate. Mall.cz have obtained 11M visits in the last month of the periodic survey. National point of view, it has a good average visit duration. It has reported 6 minutes and 35-second average visit duration that pleased its users. Recorded 7.25 pages visited by a user on average. And the vital for companies to track the bounce rate of their websites.

Mall.cz has a satisfying bounce rate which is 36.71%. According to (Openupweb, 2020), It appears “Excellent” results for its websites because the bounce rate is under 40%. Traffic sources KPI is the most important part to measure the websites performance and traffic by country is vital for increasing their total visits. Considering the results of traffic sources, Search traffic has earned the most visits. The website received 58.35% visits from search traffic. And, the second position by direct traffic which received 28.37% visits. The rest of the visits are coming from referrals, social, mail, and display advertising. All those KPIs can be varied upon the visits from different countries.

It is recommended that the company could take effective approaches in specific KPIs such as traffic by country, and search KPIs. As the recommended improvements mentioned for Alza.cz that traffic sources by country is the most important for receiving more visits. And in the search KPIs, Mall.cz should have a focus on paid keywords. They should capitalize on some product keywords such as what products are trending on the market. Because consumers are searching more about the product than websites. So, if they capitalize on product keywords then it could be a benefit for receiving more traffic and achieve business goals.

6 Conclusion

The main aim of this thesis was to analyze the performance data of selected two companies including their websites. The theoretical part illustrates all about the KPIs and demonstrated their categories, characteristics and explained the uses of KPIs for companies. According to the objectives, performance data are described for all the possible processes to analyze and compare retailers' websites. By using the KPI tracking tool, the depth knowledge of selecting KPI has been achieved. The brief description of each indicator is also presented in that tool.

In the practical part, the review of Alza.cz and Mall.cz are explained with their business strategies. Data Analysis and comparison between them by using KPIs and results are explained by measuring both retailers' website performance. The results are also displayed in a dashboard by applying KPIs tracking tools.

Tracking tools has been used for both companies to understand their strength and weaknesses. They have lots of possibilities to achieve their business goals, opportunities, and new challenges. It helps any kind of business and company to control their sites more effectively. Each of the companies, businesses, and industries can use the KPIs to track their website's performance. Observing the results of both retailers' websites, it is recommended that using KPIs tracking tools might be the best approach for retailers' websites.

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