Strix®

Everything you need to know about e-commerce audit

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An audit is a bit like a visit to the dentist. It connotes something unpleasant and costly that you put off for as long as possible. At the same time, both an audit and a check-up with the dentist, carried out regularly, will save you a much more painful experience and higher costs in the future.

From our ebook, you will learn what an e-commerce audit is, why it's worth conducting one, what elements of the shop are evaluated, and how to choose a business partner.

The icing on the cake is an interview with Robert Żochowski (Delivery Director and Vice President at Strix), who has carried out dozens of audits and knows it like no one else.

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What is an audit?

Effective e-commerce learns from its mistakes and successes, and the basis of this learning is data. To get this data, a company needs to conduct an audit, which is, formally speaking, **an assessment of an organisation, product, or procedure by an independent company taking into account certain standards, norms, recommendations, or regulations**.

This definition is very broad as audits vary widely depending on the industry, the nature of the company, and the area concerned. They may analyse financial health, compliance with legal regulations or safety standards, user-friendliness, the effectiveness of marketing activities, or the efficiency of the technology used. Law firms, accountancy firms, software companies, marketing agencies - everyone who wants to develop their business uses audit services. It is no different in the case of e-commerce.

Why is an e-commerce audit important?

An online shop does not exist without customers. Customers, in turn, do not come to the online shop that is slow, unintuitive, and unattractive. **Up to 46% of users who are dissatisfied with a website's performance will not visit it again, and 64% of online customers will choose another shop for their next purchase** (LoadStorm, Econsultancy, 2021).

These figures show that even the most interesting assortment and the most attractive prices may not be enough if the shop is not user-friendly. What's more, many customers may not even see what you have to offer them because they'll be put off by an unreadable layout and a page that takes forever to load. This is why a good first impression and a smoothly working website are so important. **The problem is that if you are the owner or employee of an e-commerce site, your perspective is no longer objective**. This is an unavoidable process; the more familiar you are with your shop, the easier it is to navigate through it. You can easily find a particular category or product of your choice not necessarily because the interface is so intuitive, but because you simply know where to look. **But will your customers know too**?

This is where an auditing company comes to the rescue. External experts will look at your business not only from the perspective of new audiences but also as experienced professionals who know everything about design and optimisation of sales platforms. As a result, they will instantly assess the first impression and intuitiveness of your e-commerce, as well as delve into particular areas of your website's performance, such as effective search or page load speed.

> **TIP**
>
> **Outsourcing an audit to an external company is a great way to test their competence. If you're considering hiring a company to design a shop for you, it's a good idea to have them do an audit before you start working with them. This will give you an insight into their work culture and the technological capabilities and will help you to see if you have a good flow together.**
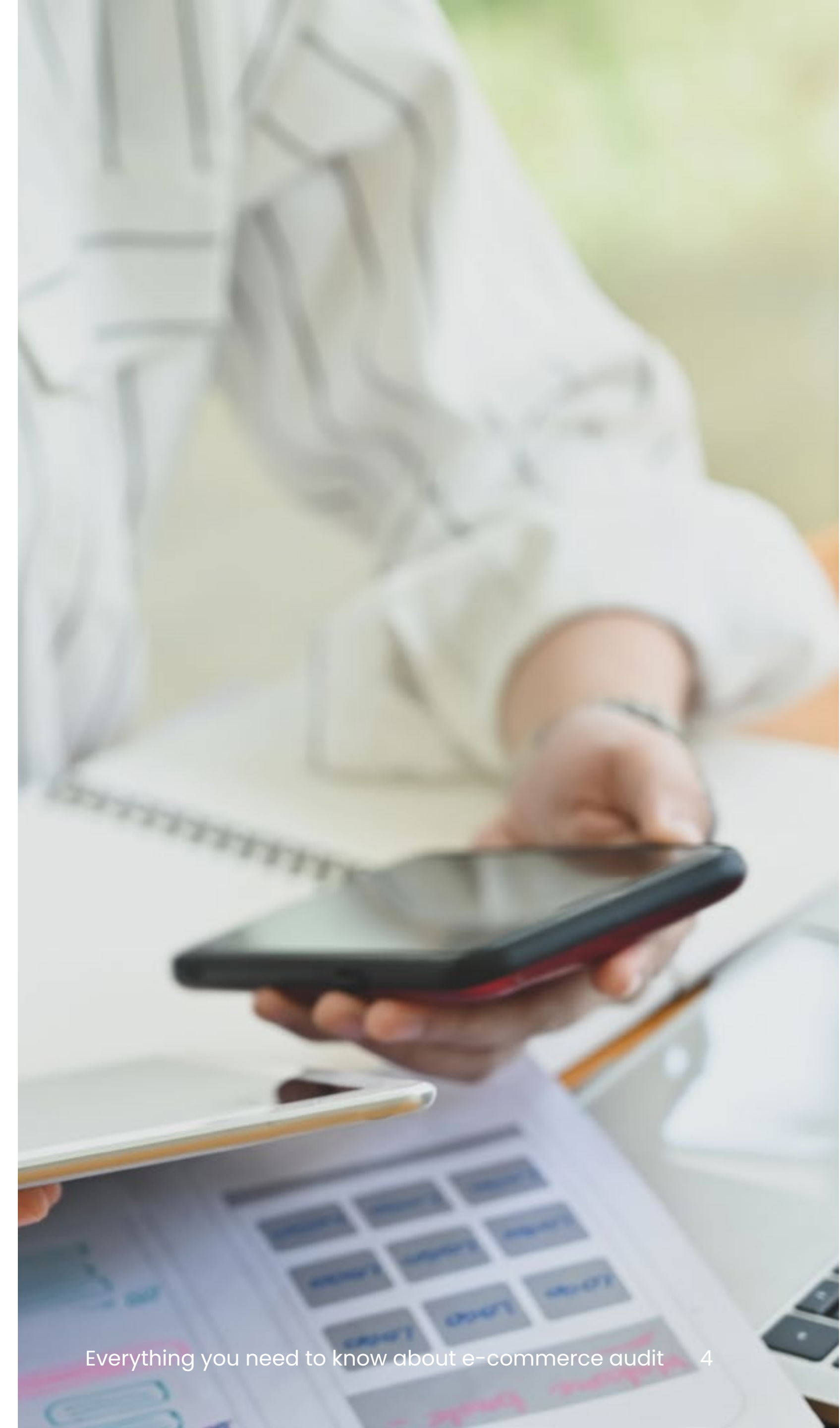
Benefits of an e-commerce audit

- Shop development

- Acquisition of new customers and retention of existing customers

- Increasing conversions

- Improving site visibility

- Optimising website performance

- Improving data security

- Improving the effectiveness of analytics

- Improved user experience

- Greater scalability of applications

- Testing the competence of a potential business partner

Types of e-commerce audits

Audits can cover different areas of the shop: UX, performance, customer service, SEO, security, etc. Depending on what you need, you can have a selected part of your business audited or check it from top to bottom.

UX AUDIT

PERFORMANCE AUDIT

VISIBILITY AUDIT

SECURITY AUDIT

UX audit

The UX audit focuses on evaluating the experience of using an e-commerce platform and determining areas for improvement. It aims to verify that the use of the shop is comfortable and intuitive for the customer and in line with established UX standards.

Elements to be assessed in a UX audit

- **The page loading speed** should not exceed 2 seconds. According to Searchspring's report, if a page takes longer than 3 seconds to load, there is an increased chance that the user will leave the shop and not see the product range at all. The audit firm identifies factors responsible for slow page loadings, such as the size of images or the condition of databases and media libraries, so that performance can be improved.

- **Responsiveness of a website** means that the site adapts to the size of the browser window and will look good on any device. **More than 70% of online shoppers use mobile devices when shopping and 73% of users report that non-responsiveness is the main reason they leave a site** (Klarna, 2022), so it is one of the first elements assessed during an audit.

- **The attractiveness and fit of the design** are extremely important factors in deciding whether or not a customer will stay on the website. Legibility, pleasant colours that do not tire the eyes but have the right contrast, high quality images, video content - everything matters. In the case of e-commerce, it is also particularly important whether the design corresponds to the characteristics of the industry.

- **The intuitiveness of the website navigation** is responsible for how quickly customers find what they need in the shop. Remember, e-commerce is not a supermarket where the customer has to walk 10 aisles before finding the right products. In the online world, if a user has difficulty navigating a website, he will simply close it, so the role of the usability audit is to assess whether the shop makes the shopping process easier or not.

- **Content comprehensibility** is the foundation of good UX, as it determines whether product descriptions, reference images, category names, action buttons, or order completion steps are presented clearly to the viewer. The industry context is also important - in a specialised shop, precise nomenclature applies, for example for tools or chemicals, while in one aimed at a wider audience, the names must be intuitive and understandable.

- **The WCAG (Web Content Accessibility Guidelines) standards** are a list of guidelines that characterise websites adapted to the needs of users at risk of digital exclusion, such as those who have difficulty seeing or hearing, have mobility impairments, or have colour discrimination problems. **It is estimated that difficulties in using the internet affect up to 30% of the population (CSO, 2020)**. An accessibility audit makes it possible to assess whether a website is friendly to such customers and to what improvements are required.

- **Product categories** are crucial for finding items in a shop. If the customer knows what he needs - he will type the right term into the search box. If he is unsure or just looking around - he will go straight to the product categories. The task of the audit is to assess whether the categories are selected accurately and intuitively, whether they group the relevant products aptly enough and whether there are too many of them.

- **Search and filtering** is the way to lead customers to specific products, so the search engine must give the expected results. Searches also need to have a certain amount of tolerance, for example taking into account related keywords and typos.

- **Product page** is the place where the decision to add items to the shopping cart is made. During a UX audit, aspects such as tagging, image and video quality, page layout, product information, recommendations of complementary items, and information about delivery and payment options are assessed to facilitate the decision-making process.

- **Personalisation of the content** displayed helps to build an experience close to a visit to a brick and mortar shop where an assistant recommends products that match the customer's needs and interests. In e-commerce, it is also possible to create a valuable relationship with the client, so the audit process pays attention to matching the displayed content to the user's profile and experiences, such as the products viewed or an offer complementary to previous purchases.

- **The shopping cart and the finalisation of the order** are critical points in any sale, as this is where the final purchase decision is made. It is very important that the shopping cart is designed in a user-friendly way and that the finalisation process is as painless as possible. There are some ways to improve the customer experience at this stage, including a visible preview of the delivery price, the ability to edit products from within the shopping cart, or auto-complete address details.

- **On- and off-page communication** is a broad area for improving the consumer experience and building relations. On-page content such as pop-ups or banners is a source of information about promotions and news, as long as they do not appear too often. The customer's interaction with the brand is not limited to actions on the website, so the content and design of post-purchase emails, newsletters, and even social media ads are also important.
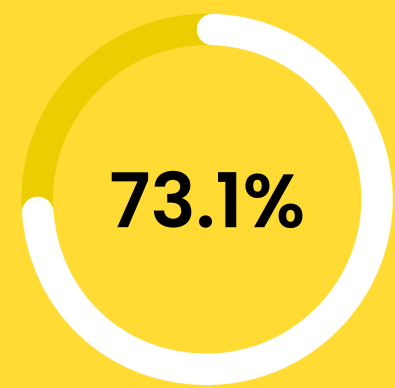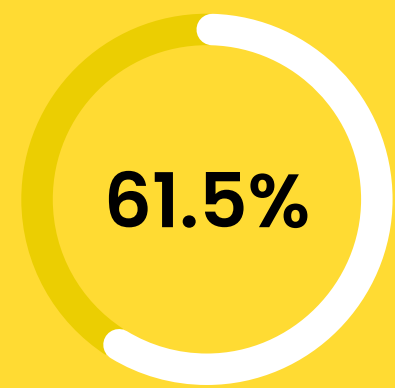
Top reasons for a visitor to leave a website
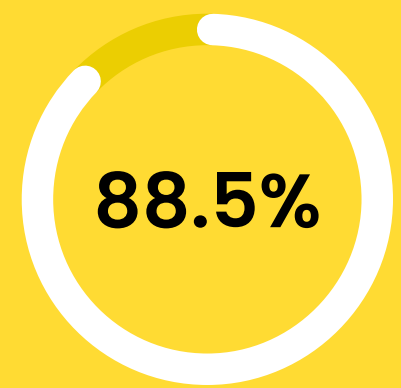
88.5%
SLOW
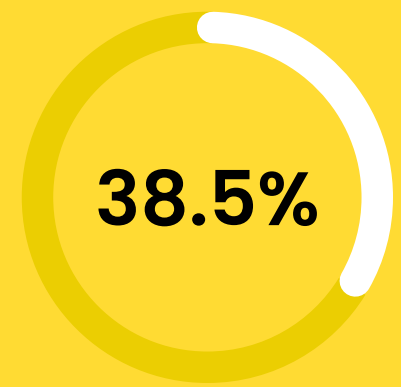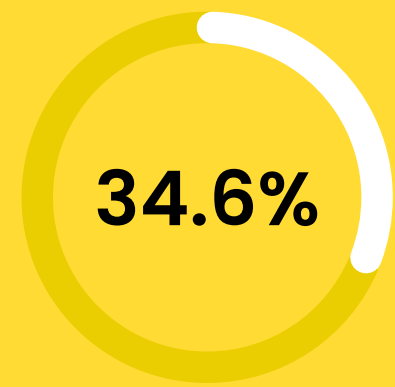LOADING

73.1%
NON-RESPONSIVE
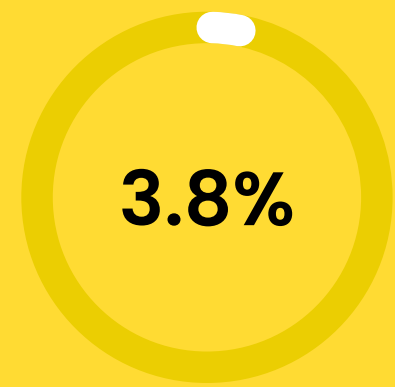WEBSITE

61.5%
BAD
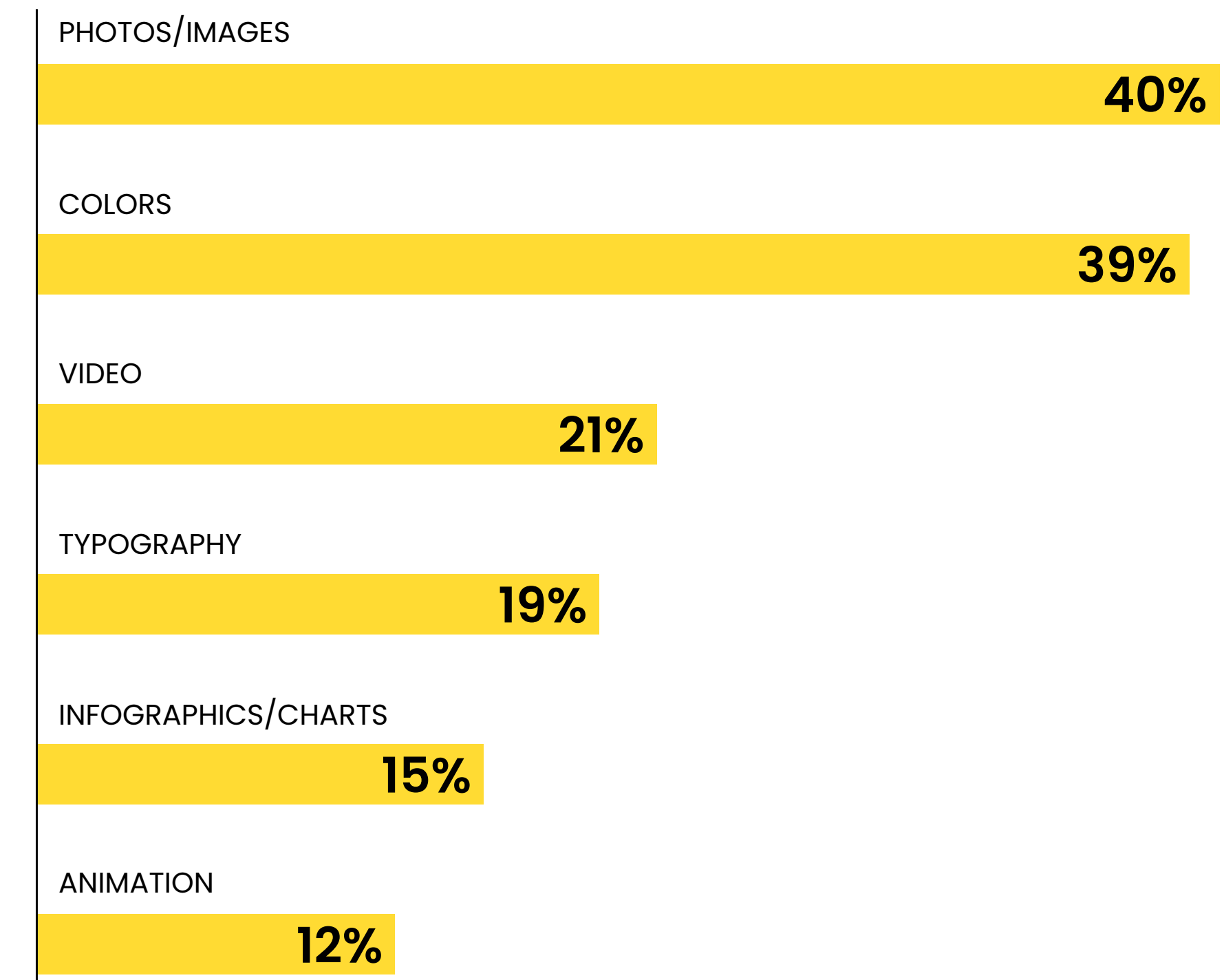NAVIGATION

38.5%
OUTDATED
DESIGN

34.6%
POOR CONTENT
STRUCTURE

3.8%
OBTRUSIVE USE OF
AUDIO/VIDEO

Source: Good Firms, 2019

What visual elements do consumers value on company websites?

PHOTOS/IMAGES
40%

COLORS
39%

VIDEO
21%

TYPOGRAPHY
19%

INFOGRAPHICS/CHARTS
15%

ANIMATION
12%

Source: TDF, 2021

Approaches to UX auditing

A UX audit is governed by certain laws and standards - making it as objective as possible, rather than being dictated solely by expert preference. However, several approaches can be taken when conducting a UX audit.

- **Cognitive path**
  The cognitive path method involves impersonating the customer and taking their perspective. This technique allows a step-by-step mapping of the user's actions, observing where they encounter difficulties and where they move around the shop with ease. The basis for creating personas, i.e. the target audience for a service or product, is the analysis of data from sources such as Google Analytics or Hotjar and the shop's sales statistics.

- **Heuristic analysis**
  The heuristic analysis method makes it possible to check the compliance of an e-commerce website implementation with paradigms, i.e. an inventory of commonly accepted UX principles. Such guidelines are proposed by specialised research institutions such as the Baymard Institute and Nielsen.

- **Hybrid approach**
  The hybrid approach combines elements of the cognitive path and heuristic analysis and provides a complete overview of the e-commerce site. An expert conducting the audit analyses the shop from the user's perspective while applying accepted design practices.

Usability tests

A useful e-commerce site is one where customers can easily find what they are interested in and need. For example, if a user is looking for cycling shoes, when they enter a shop page they should immediately see a search term that returns relevant results for both the keywords "cycling shoes" or "bike shoes". To check whether a website is user friendly during a UX audit, usability tests are carried out to understand how customers behave on the site, where they encounter problems, and where their interaction with the site runs smoothly.

- **Moderated test**
  A moderated test is a type of desktop or remote study in the presence of a UX specialist, during which shoppers are asked to perform specific tasks on the website, such as finding a product, adding it to the basket, or finalising an order. The experts conducting the audit observe how users perform these activities and then talk to them about the problems encountered and their overall impressions.

- **Testing using UX tools**
  The second way is to study the activities undertaken on the website, for example by heatmaps or eye-tracking. Tools that track the user's interaction with the website are used to monitor activity.
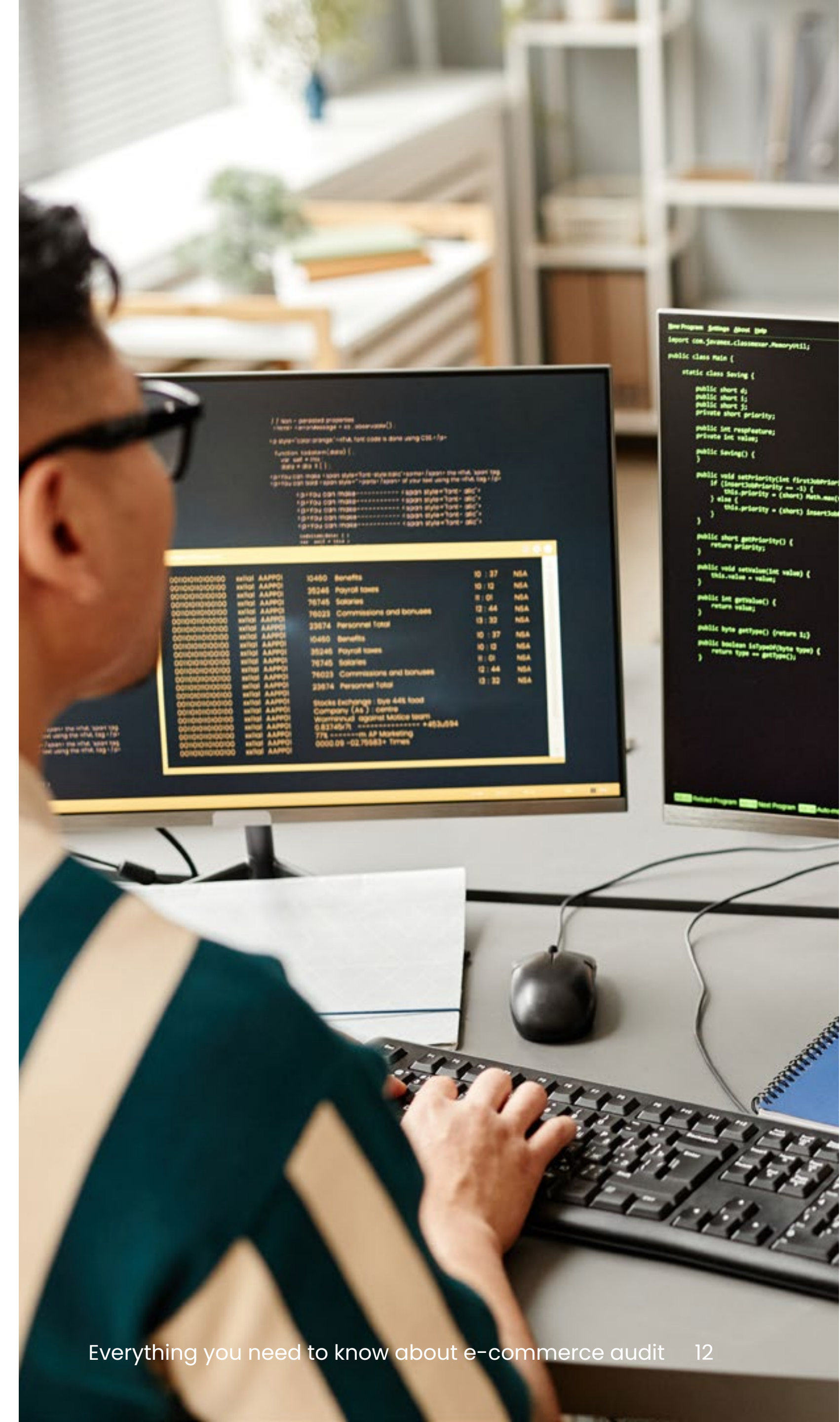
Performance audit

While a UX audit is concerned with those elements of the shop that the customer sees or interacts with, **a performance audit focuses on assessing the entire technological background that allows the sales platform to function**. An online shop is a complex system consisting of a huge number of elements. Many visuals such as product images, videos or animations, integrations with external systems, automations, personalisation algorithms, additional functionalities, and a huge amount of data. All of this means that many things can go wrong in an e-commerce system, causing errors and system crashes, resulting in a decrease in the satisfaction of your customers. **The purpose of a performance audit is to analyse the system architecture and server environment and propose the actions needed to make your shop run quickly and smoothly**.

Elements to be assessed during a performance audit

- Quality and speed of the frontend and backend layers.

- Correctness of development and modifications for a specific shop engine (framework).

- Code compliance with standards for the relevant area.

- Correctness of shop operation verified based on application monitoring.

- The shop's ability to handle increased traffic, for example, during Black Friday.

- Correctness of the process of development, implementation, and testing of functional changes.

- Configuration of necessary hosting services and their application.

- Implementation architecture and integration architecture of the shop system with internal systems involved in the sales process.

- Hardware resources allocated to operate the shop for the assumed value of traffic handled.

- Server architecture in terms of scalability and availability for individual services and the e-commerce system as a whole.

Performance audit step-by-step

STEP 1: System analysis
The first step involves analysing your system from the ground up and identifying issues that may be slowing down performance. Key at this stage is an inventory of the system architecture of the implementation in several areas: system configuration, code quality, traffic volume, number of users, products, and integration.

STEP 2: Server analysis
At this stage, the configuration of the server environment is assessed, covering the system requirements of connections and services, the server architecture, and the correctness of the environment. This verifies that the server is suitable for the system deployed and the size of the database, such as the number of products. If the server is not powerful enough to carry your shop, the experts conducting the audit will suggest more optimal server configurations.

STEP 3: Performance monitoring
Analysis of the application's behaviour on production servers, code analysis, and website loading speed in the areas of server infrastructure, database, PHP scripts, script execution, page content building, page code analysis, and loading speed analysis.

STEP 4: Load tests
Preparation of load test scenarios reflecting the behaviour of the shop's customers, taking into account the specifics of the system, running tests to verify the load limit, identify bottlenecks, and assessing scalability.

STEP 5: Recommendations
Wartościowy audyt to nie tylko informacja o tym, co jest zrobione źle, ale przede wszystkim wskazówki, jak to poprawić. Ostatnim krokiem w audycie wydajności jest spotkanie podsumowujące, na którym firma audytowa podzieli się z Tobą dokumentem końcowym, listą wąskich gardeł i błędów, które zmniejszają efektywność twojej strony oraz rekomendacjami dalszych działań.

The most common mistakes that reduce shop performance

- graphics files that are too large and slow down the page loading

- a page that loads entirely instead of displaying only the necessary content

- inefficient use of cache memory

- mixing CSS and JV codes

- diacritical marks in the code

- outdated media libraries

- inadequate server configuration

Examples of measures to improve shop performance

- elimination of errors in the code

- optimisation of cache memory usage

- compression of large images

- clearing media libraries and databases

- optimisation of server configuration

- reduced server load and page load times

- optimisation of settings and code for custom modules

Visibility audit

Even the best optimised and most intuitive shop won't make money for itself if customers don't come to it! In a situation where your platform has a great UX and a flawless infrastructure and yet sales are not growing, it is worth looking at visibility.

Only customers who know your shop will reach it by typing the site address into the search engine window and then looking for the product they need directly from the site. Most users will first type the name of the product into Google's window and click on the result they like best. And it's visibility that determines whose offer they see first. According to CustomerBoost, **up to 70% of smartphone users search for product information on Google before making a purchase, so the game is worth some effort**. A visibility audit is primarily concerned with assessing whether a website meets SEO standards.

Elements assessed during a visibility audit

- Website traffic, i.e. website views, number of new and returning users, bounce rate, time spent on site, etc.

- The keywords that will most effectively lead customers to the results they are looking for are popular enough, but also not too generic.

- Link building increases the chance of display.

- Alt attributes, i.e. image descriptions, so that google's robots know what is in the graphic.

- Content structure, i.e. avoiding walls of text in favour of a readable structure.

- From the SEO perspective, the most important are product pages. Firstly because this is where you can afford to have the most content, and secondly because it is the specific products that make up the most frequent search terms. An effective PIM tool can make it much easier for you to optimise your product pages, not only for site navigation but also for SEO.

Security audit

Online shops are tasty morsels for cybercriminals as they collect huge amounts of data about their customers. Name, contact details, home address, and even credit card details are just some of the information provided during the ordering process, which is why data security should come first in the e-commerce industry.

A security audit involves finding any gaps and weaknesses that could be the source of data leakage. The companies providing this service check the points on the list of security requirements one by one and test the shop's security in practice, trying to break through the system's defenses. In this way, they look for weaknesses that are susceptible to hacking attacks.

Elements to be assessed during a security audit

• **SSL certificate** – this is a system for protecting data confidentiality. With it, the user's data is encrypted while still in the browser they are using on their device and only then transmitted to the shop's server. How do you know if a shop has implemented an SSL certificate? Simply look at the address in your browser. If the page name is preceded by https://, this means that the page has a certificate. If the address is preceded by http// - the missing "s" is a sign that the website data is not protected by the protocol. In this situation, when a user tries to access an unprotected site, Google displays an unsafe message. **This negatively affects the credibility of the shop and may cause the customer to abandon the purchase**.

• **External links and redirects** - during a security audit, it is worth verifying that all links appearing on the site lead to existing secure sites.

• **Security of the payment process** - the moment of payment is the most sensitive point in the purchasing process. During the audit, it is crucial to check the level of security at the point of redirection from the shop's page to the payment page to eliminate the risk of unauthorised payments.

• **Compliance with data protection legislation**, for example GDPR.

• **Security of access and authorisation** - one of the basis of site security is to control how many people have access to individual shop entitlements and whether the verification process at login is sufficient.
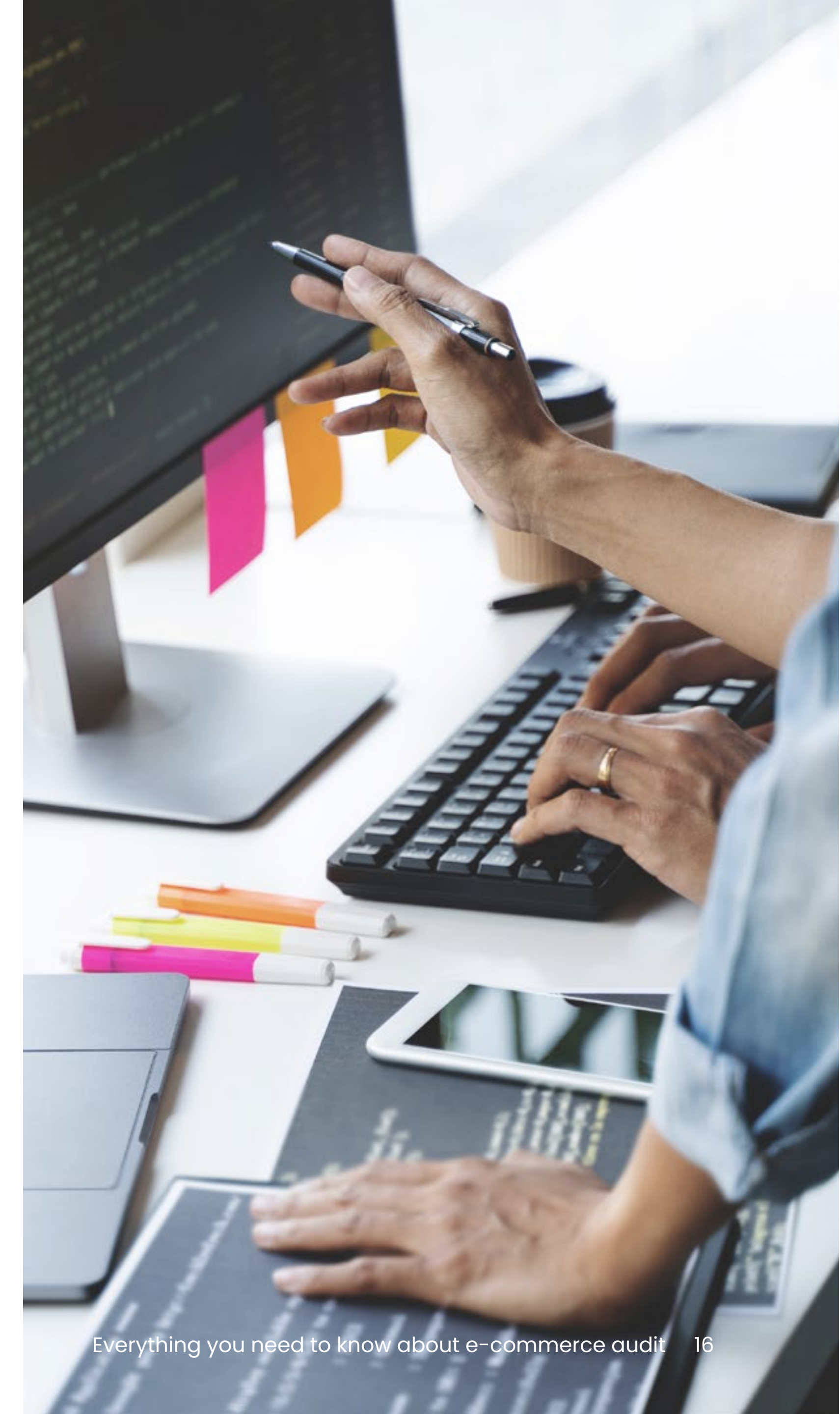
How to prepare for an audit?

1. 1Do your research on e-commerce auditing to find out what such a process looks like, what you can expect, and what will be assessed. Congratulations! This process of your preparation is currently underway as you read this ebook. :)

2. 2Set your expectations. An audit looks at many elements of a shop's operation, so think about your priorities and the areas on which the assessment company should focus first.

3. Choose a business partner. Check out auditing companies and contact them to find out exactly what range of services they can offer you. Later in the ebook, you will read more about what criteria you should use.

4. Gather data about your shop. For the audit company to carry out an assessment, it will need data such as information about the size of your shop, the number of customers and transactions handled, as well as insight into your source code and documentation. At the start of the collaboration, you will be given a list of the information you need from the company.

TIP

Sometimes it is better not to direct the auditing company on which elements need improvement but to let them look at your business freshly, without suggestions. This is a valuable approach when you need a comprehensive assessment of your shop and want to know the full cross-section of aspects that need improvement. However, if there are areas you care most about, let them know what your priorities are.

How to choose the right audit partner?

Choosing the company you entrust with auditing your e-commerce is quite a challenge. A well-conducted assessment is invaluable support for your business, while an audit done without the right expertise can only mess you up and leave you with more questions than answers. So when establishing a relationship with an audit partner, pay attention to whether you are dealing with an experienced organisation that regularly deals with audit services.

It is also worth making sure that the company not only deals with audits but also with the implementation of projects so it can highlight the most common mistakes. Practical experience in the industry and up-to-date knowledge of the market are the foundation of a sufficient audit.

An extensive portfolio of completed projects and audit services will also be a valuable indicator of a company's credibility - after all, the work best speaks for itself!

Reviews from previous clientsare also a very important criterion. If other businesses working with a particular company have been satisfied with the results, there is a good chance that you will be too.

Finally, choose a business partner who will not only assess the state of your business but also tell you what you can do better. Suggestions for solutions tailored to your situation, practical tips, and recommendations demonstrate a quality collaboration from start to finish.

INTERVIEW WITH ROBERT ŻOCHOWSKI

Audit as a business diagnosis

ROBERT ŻOCHOWSKI
Delivery Director, Vice president at Strix

Robert Żochowski is Delivery Director and Vice President at Strix. He has been specialising in tech solutions for businesses for over 15 years. At Strix, he is responsible for optimising e-commerce systems in terms of architecture and security. He is a certified Magento expert, and the technical aspects of sales platforms have no secrets from him.

There's a lot of talk about auditing and the benefits it provides, but how do you know if a shop even needs one?

The time for an audit comes when something is not working as it should and we're not sure of the cause. In a business context, an audit is the equivalent of a diagnosis to determine what is wrong and what has to be done. Alarm signals can be a drop in the number of customers and an increase in the bounce rate. The need for an audit is also indicated by problems in the area of system operation, such as errors occurring in large numbers and security or data confidentiality incidents. A motivation to conduct an audit can also be increasing expenses for the ongoing maintenance of the system, but also, for example, the difficulty of implementing ongoing system updates.

How often should you audit your online shop?

The frequency of auditing depends on the area of focus. In the case of a security audit, regularity is very important, so it's good to implement a policy of automatic verifications based on known system vulnerabilities and current components. From time to time, it is a good idea to carry out a more detailed verification with the help of a specialist. We should also think about an audit at times of introducing major functional changes, such as modifications to the way the front-end layer works or replacing the e-commerce engine. This will allow us to check that the changes work and don't cause problems. It's also good practice to prepare for periods of heavy website traffic, such as Black Friday or summer sales, by conducting load tests in advance. This will allow us to know the weakest points of our shop and prevent website malfunctions and loss of customers.

How long does an e-commerce audit take?

Here, too, there is no one clear answer, because the time needed for the auditing process depends on the areas we need to assess. And it's not just about the analysis of the results themselves, the length of time over which we monitor the activity on the site is very important. It needs to be a period long enough for all the actions that are triggered cyclically in the shop to happen, and of course, some of them happen more often and others only from time to time. A week of activity monitoring is usually the minimum to be able to observe all types of activity in the shop. Then comes the time to interpret the results obtained, compile a report, and make recommendations, so a basic cross-sectional audit takes about two weeks. Of course, some audits take much longer. Take, for example, load tests. In this case, you need to prepare test scenarios tailored to the shop's characteristics and customer behaviour, run them, analyse the data and
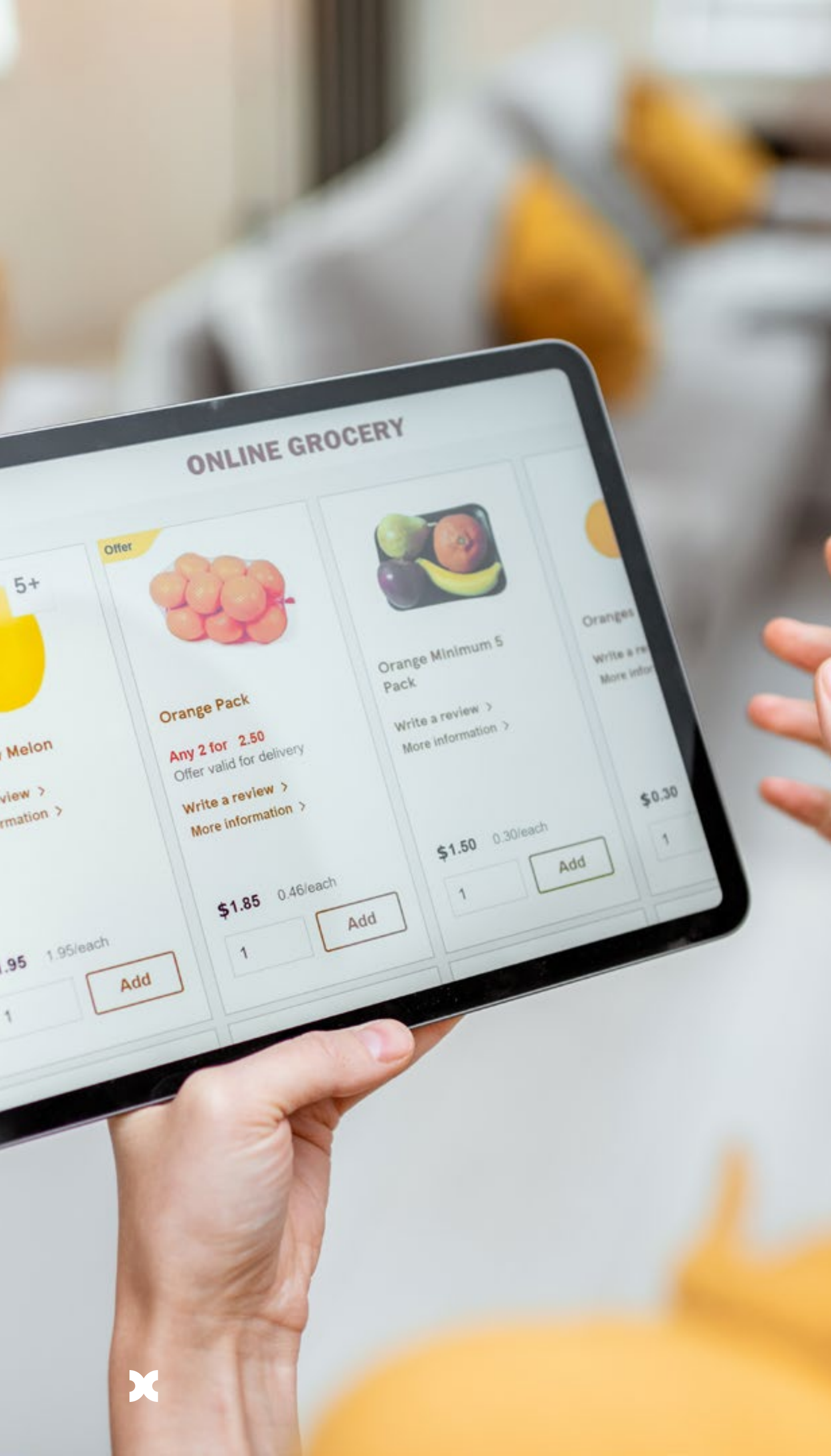
prepare the corresponding report. It can take up to a month to carry out such a procedure.

What are the most important areas of an online shop to check during an audit?

There are many types of e-commerce audits, as they cover different areas: from the hard, technical ones to those concerning communication and visibility. They are all important, depending on what the needs of the shop are and what needs improvement. We focus primarily on analysing the system and environment. Key areas include the quality and speed of operation in the frontend and backend layers, correctness of development and modifications for a specific framework, verification of the security system based on OWASP standards, analysis of the correctness of system operation based on application monitoring, readiness to handle periods of increased traffic, the process of development and implementation of functional changes, the correctness of the configuration of hosting services, implementation architecture and integration with external systems, verification of server architecture, etc. The evaluation of the security system and UX layer is also extremely important.

What are the most common mistakes in online shops that come out during an audit?

In shops that do not have large teams maintaining the system, the most common error is the lack of application monitoring or front-end performance monitoring. In such a situation, errors cannot be quickly identified and eliminated, which translates into a decrease in the quality of the site's performance. In larger, more experienced shops, such basic measures as monitoring and support are implemented and it's worth focusing more strongly on the code and security itself. Errors in the code, lack of readiness for increased traffic, or failure to prepare the infrastructure for potential hardware failure are among the more common problems.

How should you prepare to work with an audit company?

The client should certainly collect a set of technical information about its shop. Such data form the basis of our analysis and provide context for the initial situation. Before we start working together, we always send the client a checklist of the information they need, such as existing system and integration documentation, descriptions of the system architecture, data on server parameters, reports from Google Analytics and other monitoring tools, and access to the source code and code repository. It is also important for

the client to consider what their expectations of the audit are and what we should prioritise, as any e-commerce is a complex organism consisting of a huge number of elements. Sometimes clients need a general audit to check everything from cover to cover, but often they have more specific needs, in which case it makes sense to focus on priorities.

How do you choose the ideal business partner to audit your shop?

I think the best way to verify this is to find out about the company's experience and competence in audited areas. Every organisation has its field of expertise, so it would be pointless, for example, to commission a UX audit from an agency that has nothing to do with UX. It's also helpful if the audit company has practical experience in implementing e-commerce projects. Knowledge gained from working with other clients is priceless when it comes to assessing the performance of another shop, especially as you are then more sensitive to common errors and hotspots. When working with a company, there is also no better mark of quality than positive feedback and recommendations from previous clients.

What should a shop expect from working with an audit firm?

Above all, information on how to improve the shop's performance. An audit is not just about showing the clients what mistakes they are making, but also how they can eliminate them. In the audit report we prepare, we always point out areas for improvement and very specific recommendations for action. These errors and recommendations are sometimes numerous, which is why we give them specific weights and estimate the time needed for modifications - this allows online stores to focus first on the most urgent and least time-consuming ones to quickly improve their performance. This approach to feedback, transparency, and focus on the customer's business is highly valued by the brands we work with. It often happens that the company that hired us to carry out the audit later invited us to work with them on the project implementation, because they had the opportunity to test our capabilities. Such situations are the best testimony that we are doing a good job.

Contact

Need an audit of your e-commerce?
Write to us!

We'll prepare an individual offer for you, tailored to the nature and needs of your business. In addition to a complete report and analysis, you'll get recommendations for action from us, ranked in terms of priority and time required.

Maybe you will implement them with our help?

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