

ников проекта и прогнозирования потребности в основных ресурсах на будущие периоды. *Оперативный график* – график, предназначенный для планирования и контроля проекта с детализацией до единичных работ.

При внедрении ИСУП большое внимание уделяется определению ключевых пользователей с указанием их роли и функций, связанных с ведением проектов. Два ключевых пользователя – тот, кто создает и актуализирует график проекта (например, диспетчер проекта) и тот, кто будет получать аналитическую информацию из актуального графика проекта (руководители разных уровней: например, начальники подразделений, руководители проектов, руководители компании). Поэтому при построении ИСУП целесообразно использовать следующие модули: Primavera Project Management и Primavera Web Access.

Оба модуля поддерживают дружественный пользователю веб-интерфейс и кастомизацию. При этом модуль Primavera Project Management больше ориентирован на тех пользователей, который создают и актуализируют графики проекта. Модуль Primavera Web Access больше ориентирован на пользователей, которые будут не вносить информацию о проектах, а получать ее в удобном для себя виде для дальнейшего анализа с целью принятия управленческих решений. Вся информация в Primavera Web Access по проектам представляется в настраиваемых под конкретных пользователей портлетах – с учетом их функций и роли в ИСУП.

Модуль Primavera Web Access позволяет настраивать для просмотра аналитические отчеты по текущим актуальным проектным данным. Руководитель получает возможность увидеть два ключевых «среза» информации по проектам: результаты план-фактного анализа данных и прогнозы. Модуль Primavera Web Access удобен для руководителя тем, что позволяет получать аналитическую информацию по проекту / портфелю проектов с использованием системы настраиваемых под текущее состояние проекта индикаторов (по срокам и бюджету проекта).

Достоинством данного модуля также является возможность работы с ним через систему удаленного доступа, что особенно актуально для территориально разделенной инжиниринговой компании. Можно говорить о том, что модуль Primavera Web Access позволяет настроить «рабочий стол» руководителя проекта / руководителя портфеля / руководителя компании.

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COST EFFICIENCY ANALYSIS OF E-COMMERCE WEBSITE

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Since Internet started its expansion worldwide, we have faced a lot of changes in social life, as well as economy. Commercial activities have generated different legal forms of organizations while the battle for a client forces entire enterprises to dive deep in the network. Online competition in definite areas is of primary importance compared to the real one. Firms now make their sales via Internet, which provides

their competitive edge. An increasing number of startups discover new markets with the aid of e-commerce. As a consequence, online rivalry is getting tougher.

So far the main weapon is the Search Engine Optimization (SEO). By means of the SEO webmasters promote corporate and personal websites up to the top of a search engine page. Then the promoted website gets higher traffic than ever. The SEO has become a complex instrument and given rise to promotion business. The more companies compete online, the more cash they can invest into website promotion. And here come the questions. How to measure the SEO impact? How not to be cheated? This paper attempts to suggest some procedures that would indicate the effectiveness of every rouble invested in the e-commerce website promotion. Besides, our purpose is to evaluate the total effect of e-commerce maintenance charge.

To achieve the target, we have combined the methods of business analysis and Web analytics. Business analysis is a fundamental science derived from accounting, mathematics, statistics and econometrics. Web analytics refers to a tool for measuring, gathering and analyzing Internet data. In business managers tend to misunderstand or misinterpret Web analytics indicators, which is quite comprehensive as they are not correlated with economic data. To solve this problem we attempt to find correlation between website popularity (by means of hosts) and revenue gained from a website. Therefore, our working hypothesis is as follows: e-commerce website revenue is strongly correlated with unique hosts, which in their turn come from four directions: search engines, external websites advertisement, direct advertisements and direct visits. In order to estimate the website output we have to single out the revenue that is directly attached to the cost center. If we do it, then the hypothesis of website revenue and unique hosts correlation can be considered confirmed.

For instance, we apply Yandex Metrics as a Web analytics tool. It enables us to monitor the following Internet data:

- the share of visits from search engines;
- the share of visits from external websites;
- the share of direct advertising visits;
- the share of direct advertising hosts;
- the share of target inquiries.

The four mentioned above items are those cost centers whose efficiency we put to explore. Down here we cite a table of cost centers, traffic sources, hosting statistics.

Table 1. Input data for website output estimation

Cost centers	Charges	Traffic sources	Yandex Metrics sources
Search engine promotion	Invoices, accounts 76, 60	Search engines	Search engines
Advertising on external websites	Turnover balance sheet, accounts 60, 76	External website	Websites
Direct advertising	Contracts, SEO plans	Advertising keywords	Advertising phrases
Direct visits	Contracts, accounts 60, 76	Bookmarks, direct typing	Direct visits

For singling out the revenue related to each cost center we should multiply the total revenue by the share of certain hosts. For instance, to isolate the revenue gained from search engines we propose to multiply the total revenue by the share of unique visitors who surf our website using the search engine.

Table 2. Website costs efficiency indicators in e-commerce

Indicator	Formula	Transcription
Return on search engine promotion costs	$Y_{SEO} = \frac{R_{total} \times \partial_{SE} \times \partial_{target}}{Budget_{SEO}}$	R_{total} – total website revenue ∂_{SE} – share of search engine hosts ∂_{target} – share of target search inquiries $Budget_{SEO}$ - total cost for the search engine promotion
Return on external website advertising	$Y_{external} = \frac{R_{total} \times \partial_{external}}{Budget_{external}}$	$\partial_{external}$ – share of external websites visits $Budget_{external}$ - total cost for external websites advertising
Return on direct advertising	$Y_{direct} = \frac{R_{total} \times \partial_{direct}}{Budget_{direct}}$	∂_{direct} – share of direct ad visits $Budget_{direct}$ – total cost of direct ad budget
Return on offline advertising	$Y_{direct} = \frac{R_{total} \times (1 - \partial_{SE} - \partial_{external} - \partial_{direct})}{Budget_{offline}}$	$Budget_{offline}$ – total cost of promoting website in mass media, public transport, etc.

However, in the above example we did not take into consideration empty hosts, i.e. those visitors who accidentally browsed our website through so called blank search inquiries. It causes pulling blanket to search engine promotion cost center, which is obviously incorrect. To avoid this error we have introduced a new factor – the share of target search inquiries. Thus, multiplying the earlier corrected revenue by the share of target inquiries yields a more clarified indicator.

It is recommended that a diagram for every included in the table indicator be drawn considering the periodic performance. The steady growth of direct visits and search engine unique hosts demonstrates highly efficient website promotion.

Thus, these indices present a tangible picture of website promotion, which allows monitoring the most productive directions. For example, the most expensive is search engine promotion, but it is not rare when off-line advertising yields a better result. Besides, graphical performance allows a complex grade for the long-term promotion. Accordingly, managers using cost efficiency indicators in e-commerce can make more accurate assessment when investing in high-risk ventures.