

**Automation Framework for E-commerce Solution Based on
Competitor Analysis**

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ABSTRACT

E-commerce solutions have taken businesses to the next level by making them reach customers across the globe. The User Interface (UI) is the basis for the success of the e-commerce site as it is vital in making the site to be user-friendly, make it easy for customer interactions, be unique, provide the first impression, attract the customers and represent the business. The UI design is involved with different UI design decisions such as menu types, number of products on the home page, background colour, etc. Each of these decisions gets the involvement of UI standards. However, in some instances, the UI standards give contradicting design decisions. In such situations, the designers would have to strike a balance to achieve useful web analytics. However, the problem is “how”. The competitor analysis is used for this purpose. In this research, the products sold by the businesses are considered as keywords, and the sales percentage is considered as the weighted average for the keyword. The business’s one-month data are used to train the system. The system traces the database according to the collected keywords along with their sales percentage. Then the keywords are searched on the internet, and competitors’ UI design decisions are extracted. The dominant decision among the competitors’ UI is considered as the final decision. Then that UI design decision is applied to the e-commerce solution by the automated Magento system. Then the system gets evaluated using existing e-commerce solutions available on the internet, and the categories are considered as keywords, and the number of products under each category are considered as sales percentage. The expected decision would be identified by analysing the decision taken by the solution provider of the e-commerce solution and the actual design decision taken by the system. The research outcome would be proof of concern for an automated tool which would get trained through the database and generate e-commerce solutions.

Keywords –

e-commerce, User Interface, Automation Tool, Magento, catalog, XML, xpath, XAMPP

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LIST OF ABBREVIATIONS

HTML	Hyper Text Mark-up Language
URL	Uniform Resource Locator
CSS	Cascading Style Sheets
UI	User Interface
API	Application Programming Interface
DB	Database
XML	Extensible Mark-up Language
SEO	Search Engine Optimization
PHP	Hypertext Preprocessor
MVC	Model View Controller
IP	Internet Protocol
DOM	Document Object Model