A System for Analysing User Behaviour on an E-Commerce Website

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***Abstract*—This undergraduate thesis investigates user-behaviour analysis for an e-commerce website. Online retailers may use behavioural data to understand interactions and improve product discovery. The student identifies website activity, purchase history, product reviews, and social-media information as possible data sources and describes collection, cleaning, formatting, storage, and analysis workflows. The conclusion reports a student implementation of data collection and analysis for customer behaviour and recommendations. It does not provide numerical validation results for accuracy, business impact, or scalability. The source does not present a reproducible dataset, controlled comparison, privacy assessment, or measured recommendation and conversion outcomes. The contribution is a documented student study or prototype whose stated scope can guide further testing.**

***Index Terms*—e-commerce, user behaviour, data collection, recommendation**

I. Introduction

Online retailers may use behavioural data to understand interactions and improve product discovery. This thesis investigates user-behaviour analysis for an e-commerce website. It begins from a practical engineering need and explains the technologies and workflow chosen for the case. The objective is to document a student implementation or comparative investigation, together with the evidence available in the manuscript. Broader operational or economic effects require separate measurements and are not assumed from the existence of a prototype [1]. Earlier ICTU student work on related designs is included here for context [2], [3]. Related published studies provide context for the subject and methods [4], [5], [6], [7], [8], [9], [10]. These contextual works were selected for this English summary; they are not asserted to appear in the original thesis bibliography.

II. Methods

The student identifies website activity, purchase history, product reviews, and social-media information as possible data sources and describes collection, cleaning, formatting, storage, and analysis workflows. The source is summarized through its stated design, implementation material, examples, and conclusion. Features shown in the manuscript are distinguished from proposals for later development. This review does not add a new experiment, fill missing measurements with estimates, or treat a planned capability as an observed result. The source thesis remains the provenance for the reported work [1].

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III. Results

The conclusion reports a student implementation of data collection and analysis for customer behaviour and recommendations. It does not provide numerical validation results for accuracy, business impact, or scalability. The report's screens, configurations, examples, or measurements constitute the evidence for this summary. A capability described only as a design intention is not counted as a validated operational outcome. No additional performance, adoption, financial, or safety figure has been introduced here. The result is interpreted within the scope of the student's documented setup [1].

IV. Discussion

The source does not present a reproducible dataset, controlled comparison, privacy assessment, or measured recommendation and conversion outcomes. Further work could define explicit event schemas and lawful data handling, then report held-out evaluation and site performance under documented conditions. These limitations affect how the evidence should be read. The current manuscript can support understanding of the design and reported demonstration, while independent tests would be needed for stronger claims. Any later deployment should document its environment and separate observed outcomes from intended benefits [1].

V. Conclusion

The thesis documents user-behaviour analysis for an e-commerce website. The conclusion reports a student implementation of data collection and analysis for customer behaviour and recommendations. It does not provide numerical validation results for accuracy, business impact, or scalability. The source does not present a reproducible dataset, controlled comparison, privacy assessment, or measured recommendation and conversion outcomes. Further work could define explicit event schemas and lawful data handling, then report held-out evaluation and site performance under documented conditions. Accordingly, the present contribution is a source-grounded account of the student work and its tested or illustrated scope. Claims about broader effectiveness should be assessed in later work using explicit evaluation conditions [1].

References

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