MSc Computer Science
London

Est. 1841 | YORK ST JOHN UNIVERSITY

Dissertation Proposal Form

Date of Submission: __30/05/2024_____

Name	Bibek Jaisawal
Student Id	230233146
Module Code	COM7040M
Project Title	Online shopping sites research and Analysis (focusing on online shopping behaviour)
Supervisor Name	Dr. Soonleh Ling
Supervisor Approval	Yes
Supervisor Signature	

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Section 1: Academic

This section helps Academic staff assess the viability of your project. It also helps identify the most appropriate supervisor for your proposed research. This proposal will be referred to as a point of discussion by your supervisor in seminar sessions.

NAME: Bibek Jaisawal	**STUDENT NUMBER**: 230233146

PROPOSED TITLE OF PROJECT:

Online shopping sites research and Analysis (final title to be decided later in project phase)

BRIEFLY DESCRIBE YOUR FIELD OF STUDY:

The field of study pertaining to online shopping sites encompasses a broad spectrum of research and analysis aimed at understanding and improving the digital retail experience. Researchers delve into market dynamics to grasp overarching trends, such as the rise of mobile commerce or the impact of social media on consumer behaviour. Competitor analysis involves dissecting strategies employed by other e-commerce platforms to identify successful tactics and areas for differentiation. User experience (UX) analysis focuses on the usability, design, and functionality of online shopping platforms, aiming to streamline the customer journey and minimize friction points. Technological infrastructure assessment ensures that platforms are robust, secure, and capable of handling the demands of online transactions. Marketing and advertising analysis involves evaluating the effectiveness of promotional efforts across various channels, from SEO and paid advertising to social media and influencer partnerships. Data analytics plays a pivotal role in decision-making, offering insights into customer demographics, preferences, purchasing behavior, and the performance of marketing campaigns. By synthesizing insights from these areas, researchers can develop strategies to optimize online shopping sites, enhance customer satisfaction, and drive business growth in the dynamic and competitive e-commerce landscape.

E-commerce: This field explores the theory and practice of business transactions conducted over electronic networks, particularly the internet. It encompasses a wide range of topics, such as online marketing strategies, website design and user experience, fulfilment and logistics operations, payment systems and security, and customer service models tailored for the online environment.

Consumer Behavior: This field delves into the motivations, decision-making processes, and actions of consumers. It examines how individuals, groups, and organizations select, purchase, consume, and dispose of goods, services, ideas, or experiences to satisfy their needs and desires. Within the context of research, consumer behavior will focus specifically on how individuals search for, evaluate, and purchase products online.

WHAT QUESTION DOES YOUR PROJECT SEEK TO ANSWER?

Option 1: Focus on consumer behavior

Question: How do key features and functionalities of online shopping sites influence consumer behavior and purchase decisions?
This question delves into the relationship between the design and functionality of online shopping sites (e.g., product search options, customer reviews, checkout processes) and how consumers interact with these elements. By investigating this, research can provide insights into how online stores can optimize their platforms to better cater to consumer needs and encourage purchases.

Option 2: Focus on a specific aspect of online shopping sites.

Question: What is the impact of emerging technologies (e.g., artificial intelligence, augmented reality) on the effectiveness of online shopping sites?

This question narrows the scope to a specific trend within online shopping sites. Here, you'd explore how new technologies are being utilized and how they influence the shopping experience for consumers. Research could analyze the benefits and challenges associated with these technologies, providing valuable insights for online stores considering their adoption.

Focusing on Specific Consumer Segments:

How do the online shopping behaviors and decision-making processes differ between different generations (e.g., Gen Z vs. Baby Boomers)?
How do cultural factors influence online shopping behavior on a global scale?
What are the unique challenges and preferences of online shoppers in developing economies?

Focusing on Specific Product Categories:

How do online shopping experiences differ for products with high customer involvement (e.g., electronics) compared to convenience goods (e.g., groceries)?
What role do online marketplaces (e.g., Amazon, eBay) play in influencing consumer purchasing decisions for specific product categories?
How can online shopping platforms cater to the specific needs of shoppers seeking sustainable or ethical products?

Focusing on Specific Business Strategies:

How do online shopping sites leverage personalization and recommendation algorithms to influence consumer behavior?
What are the most effective strategies for online stores to build customer trust and loyalty in a competitive e-commerce environment?
How can online shopping platforms utilize data analytics to optimize product assortment, pricing, and marketing campaigns?

WHAT HYPOTHESIS ARE YOU SEEKING TO TEST?

In the context of research and analysis of online shopping sites, a hypothesis could be:

"Hypothesis: Implementing targeted improvements to the user experience (UX) of an online shopping platform will lead to increased customer engagement and higher conversion rates."

This hypothesis suggests that by optimizing aspects such as website design, navigation, and checkout processes to enhance the overall user experience, online shopping sites can expect to see improvements in key performance metrics such as customer engagement and conversion rates.

To test this hypothesis, researchers might conduct A/B testing or usability studies to compare the performance of the original website design against a redesigned version with improved UX features. They would then analyze metrics such as click-through rates, time spent on site, bounce rates, and conversion rates to determine if the changes led to the desired outcomes.

Other hypotheses could include:

"Increasing investment in targeted digital marketing campaigns will result in higher customer acquisition rates and improved return on investment (ROI)."
"Enhancing the technological infrastructure of an online shopping platform will lead to improved website performance and increased customer satisfaction."
"Analyzing customer data to personalize product recommendations and marketing messages will lead to higher sales and greater customer loyalty."
Each hypothesis represents a specific assertion or prediction that can be tested through research and analysis to evaluate its validity and inform strategic decision-making for online shopping sites.

WHAT ARE THE PROBABLE PROJECT OUTCOMES?

The probable project outcomes from the research and analysis of online shopping sites are:

1. The research is likely to yield insights into user behavior and market trends, enabling businesses to optimize online shopping platforms for enhanced user experience and increased sales.

2. The research is expected to generate actionable insights for improving online shopping platforms, including enhanced user experience, increased customer engagement, and optimized sales strategies.

3. Identification of key factors influencing user satisfaction and conversion rates on online shopping platforms.

4. Development of data-driven strategies to optimize product presentation, pricing, and promotions for improved sales performance.

5. Insights into emerging trends and innovations in online shopping site design and functionality, enabling businesses to stay competitive.

6. Recommendations for enhancing website accessibility and inclusivity features to cater to diverse user demographics.

7. Explore the impact of emerging technologies AI on consumer behavior within online shopping environments.

8. Explore how online shopping platforms can leverage data analytics to optimize product assortment, pricing, and marketing campaigns.

9. Enhance understanding of the evolving landscape of online shopping sites and their impact on consumer behavior.

Source: https://www.slideteam.net/project-outcomes-powerpoint-ppt-template-bundles.html

PLEASE PROVIDE A BRIEF BIBLIOGRPAHY OF 2-4 KEY TEXTS FOR YOUR STUDY (USE HARVARD REFERENCE STYLE)

here's a brief bibliography of key texts for the study of online shopping sites research and analysis:

1. Muniz, A. M., & O'Guinn, T. C. (2001). Brand communities. Journal of consumer research, 27(4), 412-432. https://academic.oup.com/jcr/article-abstract/27/4/412/1810411

This text explores the concept of brand communities and their role in influencing consumer behavior. It can be relevant to your research if you explore how online shopping sites foster communities around specific brands or product categories.

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2. McAfee, A., Brynjolfsson, E., Davenport, T. R., & George, G. (2016). Machine, platform, crowd: Harnessing the power of a digital future. W. W. Norton & Company. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2820745

This book delves into the impact of emerging technologies like machine learning and artificial intelligence on various aspects of business, including e-commerce. It can be a valuable resource to choose focus on research question on the impact of these technologies on online shopping sites.

3. Zhang, P., Li, M., & Liu, Y. (2014). Online reviews affect offline sales: The moderating role of information transparency. Journal of Marketing Research, 51(1), 130-143.

These texts provide valuable insights into various aspects of online shopping sites, including the economics of internet retailing, multichannel marketing attribution, e-commerce business models, and the adoption of website features.

PLEASE NAME ANY MEMBER OF THE ACADEMIC TEAM YOU HAVE DISCUSSED THIS POTENTIAL PROJECT:

NA

(staff use only) Project Approved by Academic Team?	YES		NO	

Any other Academic Staff comments

Student did not provide satisfactory RP despite given example and explanation of how to generate a RP.

The following areas need to be carried out and/or improved in order for this student to pass this project going forward:

- Student needs to demonstrate good understanding of the fields of study this project is involving, and this will impact the state of the first few chapters of his project.
- Student needs to address clearly the project outputs.
- Student needs to provide comprehensive description of the technical details of the project.
- Student needs to provide detailed project timeline.
- Student needs to demonstrate that AI can be implemented with the proposed system.

This project is partially approved subject to the progress demonstrated by the student during the project phase.

Section 2: Technical

This section is designed to help the technical team ensure the appropriate equipment to support each project has been ordered. It also exists to help you fully ascertain the technical requirements of your proposed project. In filling out this section please note that we do not 'buy' major items of equipment for student projects. However, if a piece of equipment has a use to the department beyond the scope of a single project, we will consider purchasing it. Though purchasing equipment through the university is often is a slow process.

PLEASE DESCRIBE YOUR PROJECT IN TECHNICAL TERMS:

My project involves conducting comprehensive research and analysis of online shopping sites to gain insights into various aspects of their performance, user experience, and market positioning. This includes:

Data Collection: Gathering relevant data from multiple sources, such as market reports, competitor websites, user feedback, and analytics platforms, to obtain a comprehensive dataset for analysis.

Data Processing and Cleaning: Preprocessing the collected data to ensure accuracy and consistency, including tasks such as data cleaning, normalization, and transformation to prepare it for analysis.

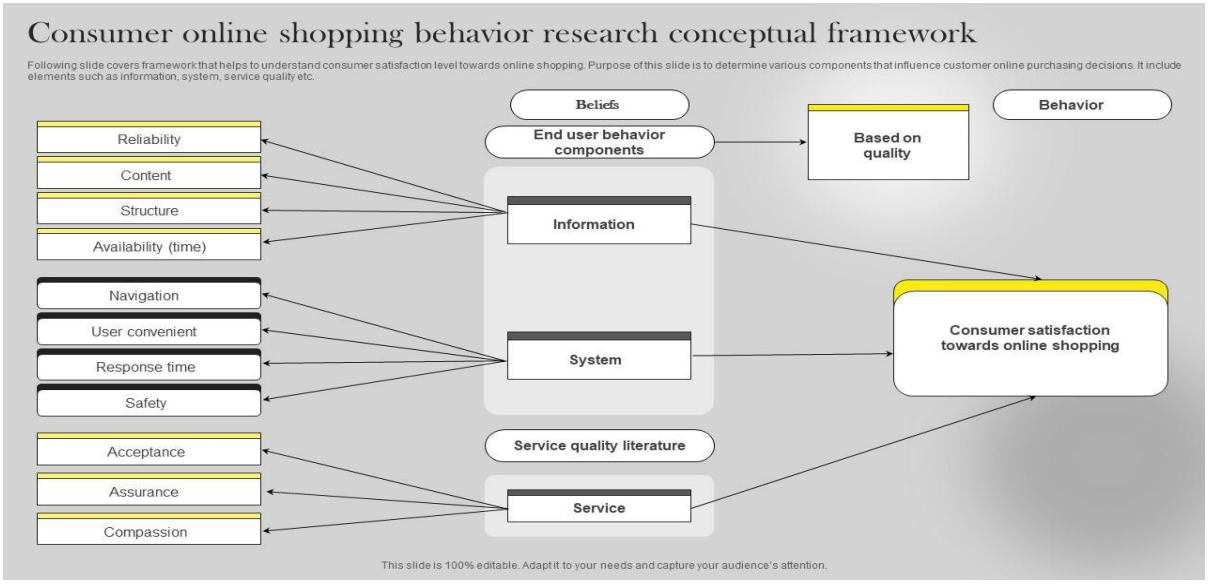
Statistical Analysis: Utilizing statistical techniques and methods to analyze the collected data, including descriptive statistics, correlation analysis, regression analysis, and hypothesis testing, to identify patterns, trends, and relationships.

Machine Learning: Employing machine learning algorithms and models to derive insights from the data and make predictions or recommendations. This could include techniques such as clustering analysis, classification, and predictive modeling to uncover hidden patterns or segment customer groups.

Visualization: Creating visual representations of the analyzed data using charts, graphs, and dashboards to facilitate understanding and interpretation of the findings, and to communicate results effectively to stakeholders.

Strategic Recommendations: Formulating strategic recommendations based on the research findings and analysis, including actionable insights to optimize online shopping sites, enhance user experience, and drive business growth.

Overall, my project involves applying a combination of data analysis techniques, statistical methods, and machine learning algorithms to gain insights into online shopping sites and develop actionable recommendations to improve their performance and competitiveness in the digital marketplace.



Source: https://www.slideteam.net/consumer-online-shopping-behavior-research-conceptual-framework.html

WHAT EXISTING LAB EQUIPMENT DO YOU NEED ACCESS TO UNDERTAKE YOUR PROPOSED PROJECT:

For my proposed project, access to specific lab equipment is not required since I operate as a software program. However, I do require access to computational resources and software tools to carry out the research and analysis of online shopping sites effectively. Here's a breakdown of the resources needed:

Computational Resources: Access to high-performance computers or cloud computing services for data processing, statistical analysis, and running machine learning algorithms.

Software Tools: Access to various software tools and platforms for data collection, cleaning, analysis, and visualization. This includes programming languages like Python or R, statistical software packages such as SPSS or SAS, machine learning libraries like TensorFlow or scikit-learn, and data visualization tools such as Tableau or Matplotlib.

Internet Connectivity: Access to reliable internet connectivity is crucial for accessing online resources, research publications, and datasets, as well as for communication purposes.

Data Storage: Access to secure data storage facilities to store and manage large datasets collected during the research process.

While I don't require physical lab equipment like laboratory instruments or machinery, access to these computational resources and software tools is essential for carrying out the proposed project effectively.

PLEASE LIST ANY MINOR EQUIPMENT YOU MUST PURCHASE TO COMPLETE YOUR RESEARCH PROJECT: (eg, switches, resistors, raspberry pi, arduino etc) NA
PLEASE LIST ANY MAJOR EQUIPMENT YOU REQUIRE TO COMPLETE YOUR RESEARCH PROJECT ALONG WITH LINKS TO WHERE IT MAY BE PURCHASED (eg a Drone, mobile phone etc). NA
HAVE YOU DISCUSSED THE FEESIBILITY OF YOUR PROJECT WITH A MEMBER OF THE TECHNICAL TEAM? IF SO WHO? NO

(staff use only) Project Approved by Technical Team?	YES		NO	
Please comment on the Feasibility of the project:				

+Section 3: Ethics Approval

This section of the form will help ascertain if you need to complete and undergo the universities research ethics approval process. Please answer all questions honestly.

Question	Yes	No
Does your Research involve any of the following? Human participants / subjects, Human tissue, Documents		✓
Will the research require the collection of primary source material that might be considered offensive or illegal to access or hold on a computer? (e.g. studies related to state security, pornography, abuse, illegal behaviour or terrorism).		✓
Does your research concern group which may be construed as terrorist or extremist?		✓
Will the research involve visual/vocal methods where participants may be identified?		✓
Will the research involve the use of genetic data (inherited/acquired genetic characteristics resulting from the analysis of a biological sample)?		✓
Will the study require the co-operation of a gatekeeper to give access to, or to help recruit, participants? (eg, headteacher or group leaders publicising your work)		✓
Will it be necessary for participants to take part in the study without their knowledge or consent at the time?		✓
Will the study involve recruitment of patients through the NHS?		✓
Will inducements be offered to participants? (eg the offer of being entered into a prize draw)		✓
Does the study involve participants who are particularly vulnerable or unable to give informed consent? (e.g. participants under 18. Adults with learning disabilities, the frail elderly, or anyone who may be easily coerced due to lack of capacity)		✓
Is there a possibility that the safety of the researcher may be in question?		✓
Will the study require participants to commit extensive time to the study?		✓
Are drugs, placebos or any other substances to be administered to participants, or will the study involve invasive, intrusive or potentially harmful procedures of any kind?		✓
If there are experimental and control groups, will being in one group disadvantage participants?		✓
Is an extensive degree of exercise or physical exertion involved?		✓
Will blood or tissue samples be obtained from participants?		✓
Could the study induce psychological stress or anxiety or cause harm or negative consequences beyond the risks encountered in normal life?		✓

*This part of Section 3 requires you to thoroughly **identify** and **mitigate** the ethical challenges of your research project. This is required to enable the computer Science ethics panel to properly consider if your proposed project requires you to submit a formal proposal to the university ethics panel.*

With your answers to the previous questions in mind, please describe the main ethical challenges of your research project and how you propose to mitigate them. Your discussion may include material not covered in the above questions. Please be as through as possible:

NA