CHAPTER III

RESEARCH METHODOLOGY

3.1 Research Paradigm

This research examines the interrelationships among visual presentation elements, user satisfaction, and the decision-making process, focusing on the Tokopedia Product Search Page. The objective is to gain insights that can optimize the presentation of Search Ads within this digital context. An interpretivist research paradigm will be employed, as it is particularly suited for understanding complex, subjective experiences and behaviors in real-world settings.

The interpretivist paradigm is chosen because it allows for an in-depth exploration of how individuals make sense of their experiences within the digital marketplace. Unlike positivist approaches that focus on quantifying data through predefined variables, the interpretivist approach recognizes that human behavior, especially in the context of online interactions, is shaped by subjective meanings, social influences, and context. In this study, the goal is not just to measure user responses but to understand the underlying reasons, perceptions, and thought processes that guide their decision-making as they interact with the Tokopedia platform.

Within this paradigm, the methodology involves observing and interpreting information to discern the meanings individuals ascribe to the phenomena under investigation. Tools such as interviews and participant observation will be used to build rapport between the researcher and the subjects, allowing for a richer and more nuanced understanding of their experiences. This approach is essential for capturing the complexity of user engagement with digital ads, which can be influenced by a range of factors including visual design, cognitive biases, personal preferences, and prior experiences.

The interpretivist paradigm is also well-suited to research where the phenomena are socially constructed, such as in the case of digital consumer

behavior. As Goldkuhl (2012) suggests, interpretive research focuses on understanding subjective meanings within social contexts, seeking to reconstruct and acknowledge these meanings without imposing external distortions. This approach is ideal for studying how users interpret and navigate advertisements within the specific social and cultural context of the Tokopedia platform.

Furthermore, interpretivist research prioritizes capturing dynamic social processes, which is particularly relevant for understanding how user preferences and behaviors evolve over time, as users interact with digital platforms in diverse and shifting ways (Bhattacherjee, 2012). The iterative nature of interpretive analysis allows for continuous refinement of insights, making it well-suited for exploring the evolving and context-dependent nature of user experience in online environments.

By adopting the interpretivist paradigm, this study aims to uncover rich, detailed narratives that reflect how individuals understand and respond to visual presentation elements on the Tokopedia platform. This approach ensures that the research captures not only the observable behaviors of users but also the subjective meanings and interpretations that shape their interactions with the site.

3.2 Research Methods

In digital environments, particularly in e-commerce, analyzing visual presentation is challenging, as it cannot be fully captured by traditional methods like digital blueprints. Each user's exploration reveals a unique visual landscape, including the competition for attention, visual hierarchy, and banner blindness, all of which affect the effectiveness of advertisements on platforms like Tokopedia. Despite growing interest in netnography to study these dynamics, there remains a gap in addressing the visual and dynamic aspects of digital spaces. Kozinets (2010) advocates for moving beyond traditional ethnographic methods to capture the complexities of online environments.

This study employs a multi-qualitative approach, combining screencast videography and semi-structured expert interviews, to provide a richer understanding of user behavior. This combination strengthens the analysis by

capturing different facets of user interaction (Bryman, 2016) and enhancing the validity of findings through methodological triangulation (Flick, 2014).

Screencast videography is used as the primary method for data collection. It records real-time on-screen interactions, providing a detailed account of user behavior that traditional methods cannot capture (Kawaf & Tagg, 2017). This dynamic approach is ideal for exploring how visual elements, such as product placements or banner ads, compete for user attention. By documenting the continuous flow of user interactions, screencasting offers insights into user engagement and highlights issues in visual design that might otherwise go unnoticed.

Semi-structured interviews with experts complement this approach by offering deeper insights into the factors that influence user attention and engagement. This format allows for flexibility while ensuring that key themes, such as visual hierarchy and banner blindness, are addressed (Gill et al., 2008). The interviews provide contextual explanations for user behaviors observed in the screencasts, offering a more nuanced understanding of how design choices impact user decisions.

The combination of screencast videography and semi-structured interviews forms a robust multi-qualitative framework. This approach allows for triangulation, cross-referencing data from both methods to enhance the depth and accuracy of the analysis (Denzin, 2009). Screencasting offers a visual record of user actions, while interviews provide the interpretive context needed to explain those actions. Together, they provide a comprehensive view of user interactions with digital ads and offer actionable insights for improving user engagement.

In conclusion, the integration of screencast videography and semi-structured interviews provides a holistic analysis of user behavior in e-commerce environments. This multi-qualitative approach addresses the limitations of traditional methods and offers valuable insights for improving digital marketing strategies and user interface design.

3.3 Data Collection Technique

3.3.1 Research Subjects and Objects

The focal point of this research lies in assessing the effectiveness of advertisements within the Tokopedia product search page, gauged through user responses in comparison to organic content and their overall app journey. This investigation will be specifically directed towards the Gadgets, Fashion, and Hobby categories, given their significant contribution to the high traffic of purchases within the Indonesian E-commerce landscape in 2023. As per a Statista survey, these categories demonstrated substantial engagement, with 71% of participants purchasing clothing, 53% acquiring shoes, and 30% investing in electronics. Furthermore, the 2023 DataReportal indicates that Electronics, Hobby, and Fashion ranked among the top three categories based on consumer spending in Indonesian E-commerce.

The subject of this study will be active users of the Tokopedia app, defined as individuals registered on the platform for more than a year and having made at least one online purchase in the last month. This selected age group for this study is 25-34, as identified by the DataReportal 2023 Global Report, which consistently represents the highest portion of the audience for advertising on social media platforms such as YouTube, Facebook, Instagram, and LinkedIn. This age group also exhibits the highest percentage of weekly online purchases, engagement with online meal delivery services, and usage of online mobility services. The choice aligns with SimilarWeb's data, indicating that 36.4% of Tokopedia website users fall within the age group of 25-34, comprising 41% female and 58% male users. This research object will be concentrated in the DKI Jakarta area. This decision is supported by insights from a Tech in Asia interview, which highlighted DKI Jakarta as the area with the highest concentration of both Tokopedia earners (40%) and spenders (17%).

The qualitative phase of this study adhered to established principles for data collection, ensuring methodological rigor. The process continued until theoretical saturation was achieved, yielding approximately 20 screencast videos. These videos,

ranging in duration from under 5 minutes to over 20 minutes, totaled around 200 minutes. This dataset encapsulates diverse user interactions and experiences within the Tokopedia app, providing a robust foundation for comprehensive qualitative analysis and an in-depth exploration of the research context.

The assertion that 16 participants are typically sufficient to achieve data saturation in qualitative interviews is supported by several studies. For instance, Guest et al. (2006) found that data saturation often occurs within the first 12 interviews, with basic elements for meta-themes present as early as six interviews. Similarly, Hennink et al. (2017) observed that code saturation was achieved at nine interviews, while meaning saturation required 16 to 24 interviews. These findings suggest that a sample size of approximately 16 participants can be adequate for reaching saturation in qualitative research.

3.3.2 Research Procedures and Instruments

In adherence to the Screencast Videography SCV protocol, the research procedure encompassed the following steps:

a. **Context**: This study evaluated the effectiveness of advertisements on the Tokopedia product search page by analyzing user responses in comparison to organic content and their overall app journey. While offline retail and shopping experiences have significantly enriched marketing and consumer research, digital experiences remain less thoroughly explored. Participants were invited to engage in the study, with the procedure explained beforehand. They then began a product search journey, during which their screens were actively recorded to capture their interactions and responses.

b. **Intervention Level**: Participants were instructed to freely open the Tokopedia App using either their own phone or the researcher's phone. They were asked to use the search feature and type in their chosen keyword within the objective categories: Fashion, Electronics, and Hobby. After clicking on a product and doing checkout or add product to wishlist, participants could proceed to the next category. They were free to continue searching in the same category for more interesting products.

c. **Software**: The QuickTime Player software package was employed for recording and editing the screencast videos. Participants were familiarized with screencast functionality, and a brief trial recording of less than a minute was conducted before capturing their complete product search experiences.

d. **Screencasting Mode**: The screencast was configured to record the full screen, and a microphone captured any audio comments and expressions made by the participant. The decision to activate the microphone aimed to allow participants to verbally express their actions and emotions during the experience. The participant camera remained disabled, focusing on digitally mediated on-screen experiences rather than capturing facial expressions.

e. **Timeframe**: Participants were granted the freedom to decide the duration of their shopping experience. Given the exploratory nature of this initial SCV, no predefined time limit was set to allow for a holistic capture of the experience without imposing restrictions. This approach aimed to avoid hindering participant immersion or inducing a rushed atmosphere during their experiential journeys.

f. **Managing Obtrusiveness**: As mentioned earlier, the participant camera remained inactive during screencasting as there was no requirement to capture the participants themselves; rather, the focus was solely on recording the on-screen experience. The researcher played no active role in the screencast session but remained readily available for discussion if participants desired to engage on any aspect of their experience. Despite concerted efforts to minimize intrusiveness, the data collection took place in a café setting, chosen to provide a natural environment where participants could comfortably conduct their product search. Despite this minimal intrusion, the screencast videos reveal that most participants swiftly adapted to the surroundings, becoming fully engaged in their shopping experience within a few minutes.

3.3.3 Data Validity Test

Ensuring data validity is fundamental in qualitative research to establish credibility and ensure the findings accurately reflect participants' experiences and perspectives. This study employs multiple strategies to achieve robust data validity, including triangulation, member checking, peer review, and maintaining an audit trail.

Triangulation is employed to cross-verify data collected from multiple sources, including interviews, direct observations, and interface analysis of Tokopedia's search result page. For instance, user insights about the effects of visual hierarchy and banner blindness on their browsing behavior were compared against observed patterns during browsing simulations. The integration of multiple data types strengthens the credibility of the research findings by ensuring consistency and minimizing individual biases (Flick, 2018).

Member checking, a process where participants are invited to review the transcripts and preliminary interpretations of their interviews, enhances the accuracy of data interpretation. By allowing participants to verify or clarify key points, the researcher ensures their perspectives are faithfully represented. According to Harper (2012), this process not only strengthens the credibility of the findings but also fosters deeper participant engagement, ensuring that their views align with the conclusions drawn. For example, after coding the interview data, participants were invited to confirm or clarify crucial themes, further reinforcing the reliability of the emerging patterns.

The study also incorporates peer review, wherein fellow researchers critically examine the research methods, data interpretation, and conclusions. This step provides an external perspective, ensuring that the researcher's interpretations remain objective and align with accepted academic standards.

Finally, developing and applying a research audit trail provides a robust framework for ensuring methodological consistency and maintaining high standards in qualitative inquiry. Carcary (2021) emphasizes that an effective audit trail requires attention to both physical records of research steps and intellectual

reflections on theoretical and methodological decisions. This approach not only promotes transparency but also enhances the researcher's awareness of the importance of reflexivity throughout the research process. By adhering to these practices, the audit trail becomes a valuable verification strategy, supporting the trustworthiness of findings and offering a solid foundation for further research.

These combined strategies reinforce the trustworthiness, dependability, and confirmability of the research, aligning with best practices in qualitative inquiry.

3.4 Data Analysis Technique

This research adopts a hybrid data analysis approach, blending deductive and inductive strategies to examine user behavior on Tokopedia's search result page. The deductive method grounds the study in established theories, particularly the Consumer Decision-Making Model (Schiffman et al., 2012), while the inductive approach allows for the identification of emergent themes and patterns that could refine or expand existing frameworks. To capture the fluidity of digital experiences, the analysis employs Screencast Videography (SCV) and Critical Incident Analysis, providing tools to decode pivotal moments and user interactions.

3.4.1 Reducing Data

Data reduction is a critical first step in organizing and structuring raw data to make it analyzable and meaningful. This phase involves selectively categorizing and filtering out irrelevant information while maintaining the essential features that align with the research objectives.

a. **Hybrid Coding Strategy:** The coding process for this study involves both deductive and inductive approaches. Deductive coding draws upon established theoretical frameworks like the Consumer Decision-Making Model (Schiffman et al., 2019), which focuses on key stages of decision-making such as need recognition, information search, and alternative evaluation. This allows for the identification of predefined categories like selective attention, which are crucial for understanding user behavior in e-

commerce contexts. At the same time, inductive coding permits the discovery of emerging patterns that might not fit the existing framework. This approach is particularly useful when dealing with user interactions that fall outside conventional expectations, such as emotional responses or unexpected patterns in decision-making (Braun & Clarke, 2006). This combination of coding techniques enables a more dynamic analysis of user behavior in Tokopedia's interface.

b. **Critical Incident Technique (CIT**): This study also employs Critical Incident Technique (Flanagan, 1954) to further reduce and focus the data. CIT is a structured method that isolates and examines specific moments of significance within a user's experience, such as clicking on a promotional banner or pausing to evaluate a product. Each critical incident is identified based on its apparent impact on the user's journey, offering insights into decision-making moments. This approach ensures that the data reduction process focuses on key interactions, making it more manageable while retaining critical information.

c. **Screencast Videography (SCV):** According to James (1907), human experience is a "continuous stream of consciousness." This perspective aligns with Screencast Videography (SCV), which captures real-time user interaction with Tokopedia's search result page. SCV is highly beneficial in this context, as it enables a detailed examination of how users engage with visual elements over time. Video data can be overwhelming due to its length and complexity, but by using critical incident analysis (Edvardsson & Roos, 2001), the researcher can focus on pivotal moments of interaction. This ensures that the data remains both comprehensive and manageable.

The process of data reduction allows the research to focus on the key elements that influence user decision-making and enhances the clarity of analysis moving forward. It ensures that no vital data is overlooked while streamlining the research process.

3.4.2 Presenting Data

Once the data has been reduced to manageable chunks, the next step is to organize and present it in a way that facilitates easy interpretation and supports the findings of the study. Effective presentation of data ensures that both researchers and readers can draw meaningful conclusions.

a. **Thematic Organization**: Data is categorized into thematic areas that correspond to the research questions and objectives. These themes are drawn from both the pre-existing framework and emerging insights. For example, themes such as "visual hierarchy and attention allocation" and "banner blindness in user navigation" are central to the analysis. These themes help to structure the data in a way that is directly tied to the research objectives, ensuring that the study addresses the specific issues identified in the problem statement (Vaismoradi et al., 2013). This thematic categorization also aids in drawing connections between different sets of data, creating a cohesive narrative throughout the analysis.

b. **Visualization Techniques**: Visual representations, such as heatmaps, flow diagrams, and bar charts, are employed to illustrate user behavior patterns. Heatmaps, for instance, show areas of the screen that attract the most attention, helping to visualize how users allocate focus across different elements of the page (Meyer et al., 2021). Flow diagrams are used to illustrate the typical navigation paths that users take during their interaction with Tokopedia's search result page, revealing common decision-making processes. These visuals help to distill complex data into more digestible forms and provide clear evidence of the study's findings. The use of screenshots with annotations also aids in mapping out key moments, such as critical incidents, where user behavior dramatically changes.

c. **Critical Incident Mapping**: In presenting the data, particular attention is given to critical incidents. By mapping the incidents identified during the reduction phase, the researcher can present clear and focused examples of user behaviors that are central to the study's findings. This not only highlights the significance of the individual moments but also shows how

these incidents fit into the broader narrative of user decision-making (Flanagan, 1954). The mapping of these incidents allows for a deeper understanding of the context in which the user interacts with Tokopedia's search result page, making it easier to identify both predictable and unexpected patterns in the data.

Data presentation techniques are designed to make the findings clear and accessible while supporting the deeper analysis of user interactions with Tokopedia's interface. These techniques allow for a clear narrative to emerge from the data, highlighting both expected and surprising findings.

3.4.3 Summarizing Data

Summarizing the data is the final step in the analysis process. This step condenses the presented data into meaningful insights that answer the research questions and address the problem statement. Summarization helps ensure that key patterns and findings are identified and communicated effectively.

a. **Synthesizing Key Findings**: Data is synthesized by grouping the most significant findings according to the research themes. This includes an overview of user behaviors and how they align with or diverge from the hypotheses posed in the introduction. For example, the synthesis of the findings on visual hierarchy might reveal that users are more likely to engage with product listings that adhere to clear hierarchical design principles, such as using size and color contrast to guide attention (Woods, 2020). Similarly, the findings on banner blindness might show that users tend to ignore promotional elements that do not align with their immediate purchase goals, confirming existing theories while also offering new insights (Lohse, 2000).

b. **Contextualizing within the Framework**: The summarized findings are then contextualized within the theoretical framework used in the study. By linking the observed data back to existing theories of consumer behavior, attention, and decision-making (such as the Consumer Decision-Making Model by Schiffman et al., 2019), the research can offer a more

comprehensive understanding of how users interact with e-commerce platforms like Tokopedia. This allows the study to contribute both to academic knowledge and to practical recommendations for e-commerce businesses.

c. **Final Insights and Proposals for Future Research**: The final summary provides a holistic view of the research findings and their implications. It also identifies potential avenues for future research, such as investigating the role of visual design in other e-commerce platforms or exploring the impact of personalization on user behavior. These insights help guide future studies that may seek to expand on the current research or apply its findings in real-world settings.

The summarization process is critical for drawing clear conclusions from the study's complex data, helping to answer the research questions and offering valuable insights into how visual hierarchy and banner blindness shape user behavior on Tokopedia's search result page.