

**GRAPHIC DESIGNER EXPERIENCE IN THE USE OF DIGITAL TECHNOLOGY IN THE
CREATIVE INDUSTRIES OF YOGYAKARTA**



A THESIS

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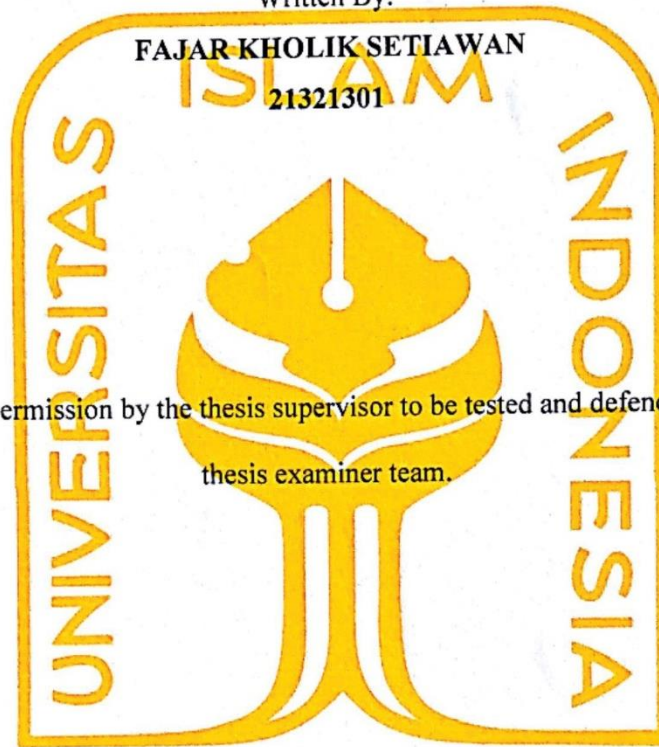
2026

AGREEMENT SHEET

GRAPHIC DESIGNER EXPERIENCE IN THE USE OF DIGITAL TECHNOLOGY IN THE CREATIVE INDUSTRIES OF YOGYAKARTA

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**VALIDITY SHEET
THESIS**

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Yang menyatakan,



(Fajar Kholik Setiawan)
21321301

MOTTO

"Anugerah Paling Besar dari Tuhan itu adalah Akal Budi".

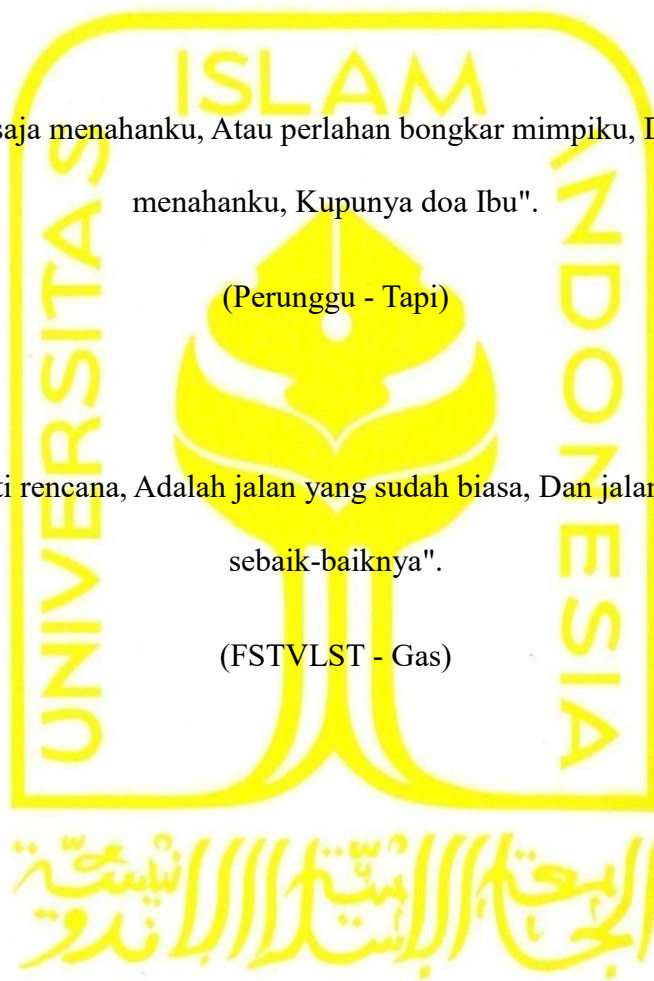
(Fahrudin Faiz)

"Dunia boleh saja menahanku, Atau perlahan bongkar mimpiku, Dunia boleh saja menahanku, Kupunya doa Ibu".

(Perunggu - Tapi)

"Berjalan tak seperti rencana, Adalah jalan yang sudah biasa, Dan jalan satu-satunya, Jalani sebaik-baiknya".

(FSTVLST - Gas)



DEDICATION

I dedicate this thesis to myself, my parents, my younger brother, my entire family, and my close friends. Without their prayers, love and hope, I would not have been able to complete this thesis.

FOREWORD



All praise and gratitude to Allah SWT for the blessings, strength, and health bestowed upon me during my study and the completion of this thesis. May peace and blessing also be bestowed upon the Prophet Muhammad SAW, a noble example whose prayers we hope for in the hereafter.

After overcoming various challenges and struggles, I am very grateful for the completion of this thesis. This thesis, entitled is “GRAPHIC DESIGNER EXPERIENCE IN THE USE OF DIGITAL TECHNOLOGY IN THE CREATIVE INDUSTRIES OF YOGYAKARTA”, was written as one of the requirements for completing my studies at the Universitas Islam Indonesia and obtaining a bachelors degree in communication science.

This thesis could only have been realised thanks to the prayers, support and assistance of my loved ones and many other people who have been part of my journey. Therefore, with all humility, I would like to express my sincere gratitude to:

1. My beloved parents and family, for their unceasing prayers, love, moral and material support, and encouragement that has accompanied me every step of the way.
2. Dr. Zaki Habibi, S.IP., M.Comms., my thesis supervisor, for his patience, dedication and meticulous guidance throughout the thesis writing process.
3. Dr. Herman Felani, S.S., M.A., as my academic advisor, who has provided continuous guidance, wise advice and meaningful direction throughout my academic journey, enabling me to complete this final thesis.
4. All lecturers in the Department of Communication Studies, Faculty of Social and Cultural Sciences, Universitas Islam Indonesia for the knowledge, insights and valuable experiences they have shared with me.
5. My dear friends for their support, motivation and meaningful friendship throughout my academic journey.
6. All other individuals who although not mentioned by name, have made significant contributions to the completion of this study and thesis.

I am conscious that my thesis has not yet been fully refined and may yet have limits in scope and analysis. As a result, intelligent criticism and well-founded ideas are warmly embraced as part of a continuous process of academic growth. It is envisaged that this study will not only increase scholarly understanding, but also provide practical insights that will be useful to practitioners and stakeholders in the creative business.



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ABSTRACT

Fajar Kholik, S. 081328591160 (2026). *Graphic Designer Experience in the Use of Digital Technology in the Creative Industries of Yogyakarta*. (Undergraduate Thesis).

International Communication Studies Program, Faculty of Social and Cultural Sciences, Universitas Islam Indonesia

This study examines how Yogyakarta graphic artists utilize various digital tools and artificial intelligence to increase productivity and creativity in the creative sector. In-depth interviews and observations of graphic designers who are actively involved in professional practice are used to collect data using qualitative methods. The results showed that the designers used an organized but adaptive process that included concept development, sketching, execution, revision and finalization. This workflow is supported by the strategic use of various tools, including Procreate, Adobe Illustrator, Photoshop, and Canva. This combination of technologies emphasizes how important process optimization and interoperability are to produce consistent design results. Four aspects of user experience, namely usability, usefulness, emotional impact and meaningfulness, were used to frame the analysis. The findings show that digital technology greatly increases productivity, facilitates the production of ideas and improves the quality of design. However, the use of AI also raises ethical questions, especially regarding copyright and creativity. Furthermore, technological issues such as hardware limitations and file compatibility continue to be significant barriers. Overall, the study concludes that while AI and digital technologies are beneficial to creative practice, designers must balance those benefits with ethical considerations and contextual awareness to create meaningful and successful visual communication in the modern digital creative industry.

Keywords: user experience, artificial intelligence, technology, graphic design.

ABSTRAK

Fajar Kholik, S. 081328591160 (2026). *Pengalaman Desainer Grafis dalam Pemanfaatan Teknologi Digital di Industri Kreatif Yogyakarta*. (Tesis Sarjana). Program Studi Komunikasi Internasional, Fakultas Ilmu Sosial dan Budaya, Universitas Islam Indonesia

Studi ini meneliti bagaimana seniman grafis Yogyakarta memanfaatkan berbagai alat digital dan kecerdasan buatan untuk meningkatkan produktivitas dan kreativitas di sektor kreatif. Wawancara mendalam dan observasi terhadap desainer grafis yang aktif terlibat dalam praktik profesional digunakan untuk mengumpulkan data menggunakan metode kualitatif. Hasil penelitian menunjukkan bahwa para desainer menggunakan proses yang terorganisir namun adaptif yang meliputi pengembangan konsep, pembuatan sketsa, eksekusi, revisi, dan finalisasi. Alur kerja ini didukung oleh penggunaan strategis berbagai alat, termasuk Procreate, Adobe Illustrator, Photoshop, dan Canva. Kombinasi teknologi ini menekankan betapa pentingnya optimasi proses dan interoperabilitas untuk menghasilkan hasil desain yang konsisten. Empat aspek pengalaman pengguna, yaitu kegunaan, manfaat, dampak emosional, dan kebermanaknaan, digunakan untuk membingkai analisis. Temuan menunjukkan bahwa teknologi digital sangat meningkatkan produktivitas, memfasilitasi produksi ide, dan meningkatkan kualitas desain. Namun, penggunaan AI juga menimbulkan pertanyaan etis, terutama mengenai hak cipta dan kreativitas. Lebih lanjut, masalah teknologi seperti keterbatasan perangkat keras dan kompatibilitas file terus menjadi hambatan yang signifikan. Secara keseluruhan, studi ini menyimpulkan bahwa meskipun AI dan teknologi digital bermanfaat bagi praktik kreatif, para desainer harus menyeimbangkan manfaat tersebut dengan pertimbangan etis dan kesadaran kontekstual untuk menciptakan komunikasi visual yang bermakna dan sukses dalam industri kreatif digital modern.

Kata Kunci: *pengalaman pengguna, kecerdasan buatan, teknologi, desain grafis.*

CHAPTER I

1.1 INTRODUCTION

1.1.1 Background

The rapid advancement of science and technology appears to be closely linked to changes in human cognition, this connection is most evident in the growth of computer science. Similar trends may be observed in the equally quick ascent of graphic design and multimedia. Graphic design, a discipline that combines art and visual communication, is essential to many different businesses and sectors (Alvarez, 2018). Basically, it serves as a means of communicating ideas through visual elements such as photos, elaborate graphics or carefully selected colour palettes. This strategy significantly increases the appeal and precision of marketing for common items, professional services and a variety of other offerings. Designers strive to create graphics that are not just effective and compelling, but also highly emotive in order to connect meaningfully with customers and target audiences. Meanwhile, the rapid growth of information and communication technology has significantly influenced graphic design, resulting in an array of new software such as *Adobe Photoshop* or *Canva*, as well as tools that facilitate the creative workflow and creation of design outputs. However, one can ask if these developments fully reflect the entire scope of how they affect human expression (Starkey, 2019).

Graphic design has evolved dramatically over time, from manual printing presses to our current digital scene. These innovations have impacted not only manufacturing processes, but also how designers think about and approach visual narrative. Previously, the sector relied largely on hands-on talents, such as creating complicated hand-drawn patterns or operating letterpress machines to get exact ink impressions. With cutting-edge technology in play, we've seen an increase in automation that simplifies operations and improves overall efficiency. Graphic designers duties have expanded proportionately, from simply visual artistry to strategic communication that skilfully merges creative concepts, technology resources and the ever-changing demands of the business. However, in this era to creating content for social media platforms such as *Instagram* or *Tik Tok* necessitates a new combination of originality, interaction and visually appealing aspects, emphasising the need of high-quality design work. Thus, we are left to wonder whether this rapid pace increases the depth of human connection in our messages.

Design is defined as a creative, open process aimed at solving an issue via creativity. Throughout the design process, designers frequently examine numerous issue definitions from multiple perspectives to evaluate and generate potential solutions. The design process necessitates the use of numerous supporting tools in order to generate a visual work that solves the challenge. Design may help address diverse challenges, particularly in the creation of persuasive visual content. The strong demand for design has increased the workload of graphic designers. To manage this increased demand, designers increasingly rely on digital platforms such as Canva, Figma, PicsArt, Adobe Photoshop and Adobe Lightroom, which facilitate efficient image editing, image manipulation and content creation for digital platforms. In this case, additional training is required to understand how to use them, beginning with tools, shortcuts and other functions (Diariono, Musmuliadi and Purmadi, 2018). The program has a variety of features and capabilities for graphic design work, as well as artificial intelligence technology.

Merriam-Webster Dictionary defines artificial intelligence as “a branch of computer science dealing with the simulation of intelligent behavior in computers”. In simple terms, artificial intelligence is the creation of computer systems capable of doing activities that would ordinarily need human intellect such as learning, problem solving and decision-making. In addition, artificial intelligence technology not only provides functional benefits in terms of accelerating production but also sparks ethical debates regarding the originality of creative works.

Design practitioners must increasingly recognize that, while artificial intelligence may help generate visual ideas quickly, human judgement is still essential to ensure creative quality, cultural sensitivity and the depth of meaning encoded in design work. Within this changing context, the task is not to choose between technology and creativity, but to strike a constructive balance between computer help and human intuition. Such balance has emerged as a vital professional ability in this digital era. A comprehensive knowledge of how deeply artificial intelligence technologies are presently established in design practice allows graphic designers to engage with these tools strategically rather than blindly accepting them. At the same time, understanding the larger implications of artificial intelligence for creative design is critical in order to predict and minimize the unintended effects of overreliance on automated systems.

The manner in which graphic designers are using technological breakthroughs to create works that are original, interactive, visually appealing and sensitive to current demands

mirror wider shifts in the creative sector. As these techniques mature, the creative sector has evolved as a critical component of the global economy, contributing not just to regional economic growth but also to cultural development and identity construction. The growing availability of digital technology has prompted creative practitioners to use a diverse set of apps and design tools to improve the quality, efficiency and relevance of their output. In this context, Yogyakarta largely regarded as one of Indonesia cultural and creative centers, actively engages in these ongoing developments rather than remaining isolated.

According to Yolandita & Kristanto. (2024) define as artificial intelligence technology develops, graphic designers are beginning to integrate artificial intelligence into the various stages of the creative process, from concept formulation to final execution. Through machine learning algorithms, artificial intelligence is able to recognize patterns, colors and effective visual compositions, while providing suggestions or recommendations that can support the designers work process. One example is the application of style transfer, where artificial intelligence can apply certain visual styles from one image to another, resulting in a new interpretation of a visual work with a high degree of accuracy. Ultimately, artificial intelligence enables the creation of a more inclusive work environment in the design industry, where individuals from diverse backgrounds can participate and produce creative work without being burdened by technical limitations.

This research was conducted in Yogyakarta, a place where visual art practices are characterized by continual mobility and experimentation. The local creative environment is distinguished by the consistent appearance of new artistic works, the regular organizing of exhibits and art events, the creation of numerous creative venues and the formation of art groups formed by various conceptions, ideologies and artistic trajectories. Graphic design groups in particular, have grown with larger cultural movements, propelled by a strong desire to improve technical abilities and explore new creative possibilities. According to Mahendrapati (2018), these groups have a consistent excitement for experimentation and investigation, aiming to increase the expressive possibilities of graphic arts while making them more accessible and relevant to a broader audience.

Yogyakarta was chosen as the subject of this research because of its significant and well-established potential in the creative industry sector, notably as one of Indonesia leading hubs of art and cultural output. This stance places the city inside a dynamic setting in which creative activities are constantly negotiated and reinvented. In the context of current graphic

design, practitioners face issues that go beyond technical execution, necessitating a multidisciplinary approach that takes into account societal trends, patterns of user behavior and changing market dynamics. In such situation, education, professional training and practical experience all play an important part in shaping a designers ability to adapt and sustain creative progress.

Understanding how graphic design and digital technologies are used by professionals in their daily work becomes increasingly vital as industry expectations shift. This research that emphasizes user experience in the creative business, particularly its impact on graphic design creativity across many applications, provides a useful analytical lens. Through this lens, the current study aims to get a better knowledge of how creative industry practitioners in Yogyakarta use various technologies or application into their workflows in order to create design works and adapt to increasingly complicated market demands.

This study offers novelty by integrating the user experience perspective into the analysis of graphic design practices as a form of visual communication in the digital age. Unlike previous research that tends to separate the technical aspects of technology such as artificial intelligence, from the user experience this research positions user experience as a bridge between technology and communication practices. This approach allows for a more comprehensive understanding of how designers not only use technology but also interpret, experience and communicate values through their visual work.

In addition, another novelty lies in the local context discussed, namely Yogyakarta as an active and dynamic cultural space. This study views technology not only as a means of production but also as a communication medium that interacts with local cultural values, visual identity, and daily creative practices. Thus, the study extends the study of media and communication by showing that digital graphic design is not merely a visual product, but rather a communication practice that simultaneously involves dimensions of technology, culture, and user experience.

1.1.2 Problem Formulation

The building on the previous background, this research focuses on graphic designers direct experiences as they use technological improvements to feed their creativity, resulting in works that are more interactive, visually appealing and simplified. In today digital era, these tools have become an integral part of how designers bring their inventive ideas to reality. With that in mind, the study looks at how Yogyakarta graphic designers use tools like Adobe

Photoshop for intricate pixel designs and Canva for quick social media graphics to create outputs that are unique, interactive and visually striking, all while keeping up with the growing demand for engaging social media content. However, one cannot help but wonder if this dependence on technology genuinely elevates particular artistic voices or dilutes the basic core of personal expression.

This research contends that the emergence of digital technology and artificial intelligence has dramatically altered graphic design techniques, but surprisingly little research has been conducted into the real-world experiences of Yogyakarta designers as they embrace and implement new advances. It focuses on the use of diverse design tools and technologies, as well as the strategies and approaches graphic designers employ to produce outputs that are really creative, interactive, visually appealing and highly efficient. Rather than delving into the technical details of each program, the focus is on how these tools integrate into creative workflows and design processes. Still, one cannot help but ask if this move actually empowers designers or if it sometimes overshadows the human intuition that drives true innovation.

The target participants in this research are graphic designers who work in Yogyakarta, Indonesia. The choice of Yogyakarta as the study location is not just geographical, but also based on its long history as a hub of artistic activity and cultural creation, where visual traditions and modern design sensibilities mix in complicated ways. In this environment, artist and designer groups are always experimenting, frequently balancing local cultural narratives with global visual trends. At the same time, Yogyakarta has a reasonably high level of involvement with digital design technologies, which range from industry standard software to new creative tools. This scenario makes Yogyakarta an especially relevant location for studying how graphic designers incorporate technology into their creative processes while retaining uniqueness, cultural relevance and innovation in the creation of visually appealing material.

According to this explanation, the main research issue for this study is:

- How is the experience of graphic designers in Yogyakarta using technology advancements to create works that are more creative, interactive, visually appealing and efficiently produced within the creative industry?

1.1.3 Research Purpose and Research Objectives

The purpose of this research is to investigate the experience of graphic designers in Yogyakarta using technology advancements to create work that is more creative, interactive,

visually appealing and efficiently produced within the creative industry works to react to the rising needs for social media content. Graphic designers use of digital tools and design applications in their daily practices to stimulate and enhance their creative powers is highlighted, despite the fact that the consequences of such activities are not always completely predictable. At the same time, the research addresses the obstacles that arise as a result of these opportunities, particularly as designers manage altering technical environments, changing professional expectations and the requirements of ongoing adaptation in creative industries.

1.1.4 Benefits of Research

This study is anticipated to provide both theoretical and practical advances, while its impact may vary depending on the situation. From a theoretical standpoint, the findings provide insights that can inform debates in graphic design studies and more widely in the creative sectors. By investigating how graphic designers in Yogyakarta use digital technology in their creative work, this research adds empirical depth to current knowledge and emphasises how technical tools are managed within culturally situated design processes. Such an examination helps to develop a more sophisticated view of creativity as a process influenced not just by tools, but also by environment and professional judgement. At the same time, the research offers an updated theoretical viewpoint on the usage of design applications and new technologies in creative settings, emphasising their significance for both the design process and the features of final visual outputs.

From a practical sense, this research has implications that span various layers of the creative ecosystem, however their applicability may vary depending on individual professional circumstances. For graphic designers in Yogyakarta, the findings give solid insights into how digital technologies might be used more strategically in everyday practice, promoting job quality while maintaining competitive in an increasingly saturated market. Beyond individual practitioners, organizations responsible for graphic design education and professional training may use the finding to recalibrate curricular material, better matching learning outcomes with the skills and competences now expected by the industry. Companies and creative agencies are likely to benefit from a better understanding of how technology can be integrated into design strategies, allowing for the creation of more engaging and effective visual outputs that address communication objectives.

At the public policy level, the findings of this study may guide the establishment of programs and efforts to promote the sustained expansion of Yogyakarta creative industries

while also increasing their competitiveness beyond the regional context. Such insights can help policymakers identify areas where technology support, capacity training or regulatory frameworks are most needed, even if their efficacy is ultimately dependent on implementation and local conditions. In this regard, the research is positioned to provide value to a wide range of stakeholders, including academic communities, creative practitioners, industrial players and policy institutions, all of whom may interpret and implement the finding in unique but complementary ways.

1.2 LITERATURE REVIEW

1.2.1 Previous Research

To place this work within wider academic discourses on creativity, user interaction and technology-oriented practices in the creative business, a thorough review of the current literature is required. Rather than seeing these areas as separate, past research has revealed their connection in modern digital contexts. In this regard, Tri Wantoro (2024) qualitative research on user experience in the Indodax application provides a useful analytical starting point. His research focuses on how interface structure, navigational clarity and patterns of user interaction affect user satisfaction and decision-making processes. These finding give a solid framework for understanding digital engagement, especially in creative and technical environments where design decisions subtly but powerfully impact user behaviour and perception.

User Experience of the Indodax Application (Qualitative study on the User Interface (UI) and User Experience (UX) of the Indodax Application) by Tri Wantoro (2024).

A rising corpus of research has addressed challenges related to creativity in graphic design, the increased role of technology and the consequences for the creative industry evolution. Within this context, a research conducted by Tri Wantoro in his undergraduate thesis titled is *User Experience (UX) of the Indodax Application (Qualitative research on the user interface (UI) and user experience (UX) of the Indodax application)* provides an important point of reference. The research aims to investigate users experience with the Indodax program, namely their perceptions and levels of satisfaction with its user interface and user experience. The investigation was based on proven theoretical viewpoints from consumer behaviour, visual communication design and UI/UX frameworks.

The research took a descriptive qualitative method, collecting data through in-depth interviews, direct observation and recording, which was then analysed using the Miles and Huberman qualitative data analysis model. The findings indicate that users decisions to adopt and continue using the *Indodax* application were influenced by a mix of pre and post-usage experiences. Before using this application, consumers often performed their own research using search engines, evaluated comments on the Play Store and communicated information with other crypto traders. After using the program, their opinions of satisfaction or dissatisfaction determine whether they continued to use it.

The research also identified a number of user interface and user experience issues, such as repetitive visual design, complex login procedures, server instability, unexpected system logouts, complicated withdrawal processes, assets in maintenance, relatively high service fees, a lack of real-time chat support, limited accessibility features and slow or ineffective customer service responses. Such situations have been discovered to pose possible threats to users, including financial losses in the form of cryptocurrency assets. Overall, the research emphasises that users final judgements about continued interaction with the *Indodax* application are based on a careful balance between the perceived benefits of its features and the overall quality and dependability of its service system.

Graphic Design Workshop to Improve Teenagers Abilities and Creativity at Nurul Huda Mosque Using Photoshop Application by Putri, Simarmata, Kasih, Yasmin and Yuswar (2021)

Another significant contribution is Putri, Simarmata, Kasih, Yasmin, and Yuswar research (2021), entitled *Graphic Design Workshop to Improve Teenagers Abilities and Creativity at Nurul Huda Mosque Using Photoshop Application*. This research looked at how digital design tools specifically Adobe Photoshop, may help teenagers improve technical skills and creative potential. Using a *Participatory Action Research* (PAR) approach, the research positioned participants not as passive learners, but as active contributors to the learning process, relying on their daily experiences and community context.

The intervention took the form of a hands-on graphic design class that taught participants basic Adobe Photoshop functionalities and directed them through practical tasks like logo generation. Initial investigations revealed that many of the mosque youth had little exposure to graphic design principles and little familiarity with digital design software.

Participants conceptual knowledge, technical ability and desire to engage in creative inquiry improved significantly after the instruction.

The evaluation results indicated that all participants saw evident benefits from the program, such as expanded knowledge, practical design abilities and a growing awareness of graphic design as a viable business path. Despite limits such as limited access to personal devices and licensed software, the programmes overall influence on visual thinking and creative confidence was favourable. The research emphasises the importance of practice-oriented, technology-integrated learning in community-based settings and shows how participatory techniques may promote engagement, shared responsibility and long-term motivation.

The Utilization of Open Artificial Intelligence (AI) DALL-E 2 Technology to Enhance Graphic Designer Creativity in the Indonesian Graphic Design Community by Ramdhani, and Susanti (2024).

Ramdhani and Susanti performed a subsequent research of significance in (2024), the titled is *The Utilization of Open Artificial Intelligence (AI) DALL-E 2 Technology to Enhance Graphic Designer Creativity in the Indonesian Graphic Design Community*. Based on the *Technology Acceptance Model* (TAM), the research looked at the elements that influence graphic designers views of and plans to adopt open artificial intelligence DALL-E 2, with a focus on perceived utility and simplicity of use, as well as other variables affecting adoption. Qualitative study approach was used to capture the complexities of designers experiences, combining in-depth interviews with content analysis to investigate how technology influences creativity, efficiency and collaborative practices in Indonesia graphic design community. Participants were chosen using purposive sampling to ensure that all informants had firsthand experience incorporating open artificial intelligence DALL-E 2 into their professional workflows.

The findings suggest that open artificial intelligence DALL-E 2 promotes creative exploration by allowing designers to produce a wide variety of visual alternatives from textual prompts, hence expanding ideational possibilities and encouraging experimentation. Increased productivity was also a major benefit, as the rapid creation of visual options allowed designers to focus more on conceptual development and refining. At the same time, the research recognised some problems, including difficulty in developing exact prompts and persistent worries about ethical implications and intellectual property rights.

In response to these difficulties, the authors in the research made practical proposals, such as creating usage standards and collaboration models among designers, to enable more responsible and successful adoption. Overall, the research concludes that open artificial intelligence DALL-E 2 has a high potential to boost creativity in the Indonesia graphic design community by expanding creative boundaries, stimulating innovation and streamlining creative workflows through the creation of diverse and imaginative visual outputs.

Despite an increasing corpus of research on the use of technology in graphic design, there has been little attention on the actual experiences of graphic designers in Yogyakarta. In particular, little emphasis has been placed on how graphic designers in this setting use technical tools to boost creativity while generating work that is not just original and efficient, but also interactive and engaging. Much of the available research is fragmented, with studies focusing on technical aspects such as artificial intelligence and software capabilities while ignoring user experience.

As a result, the research that incorporates a user experience viewpoint, which includes usability, usefulness, emotional impact and meaningfulness into studies of creative processes and design products is still limited. This distinction impedes the development of a more thorough knowledge of how technology influences design practice on technical, emotive and cultural levels. In response to this gap, the current research employs a thematic analysis based on user experience components to provide a more comprehensive perspective and generate deeper insights into the dynamics of technological adoption among graphic designers in Yogyakarta as they navigate and support their creative processes.

No	Research Title	Research Objectives	Theory/Concept	Research Method	Research Results	Similarities and Differences
1.	User Experience of the Indodax Application (Study on the User Interface (UI) and User Experience (UX) of the Indodax App).	This study aims to examine the user experience of the Indodax application by focusing on two primary aspects: uncovering the decision-making processes users engage in when selecting and utilizing the Indodax platform, and evaluating the quality of its user interface and user experience design based on users satisfaction, challenges and expectations.	This research employs theories and concepts from consumer behavior, visual communication design, user interface and user experience to analyze and explain users experience with the Indodax application.	This research employs in this study is a descriptive approach utilizing qualitative data.	The research identifies several persistent user interface and user experience issues, such as a visually repetitive interface, a complex login procedure, recurring server outages, withdrawal process roadblocks, relatively high transaction fees and limited responsiveness of customer support services.	Similarity: This research utilise a theoretical framework that merges consumer behaviour theory with user experience and visual communication design to understand user experience. Difference: The difference lies in the research objects, as well as the location and research sample.

2.	Graphic Design Workshop to Improve Adolescent Ability and Creativity at Nurul Huda Mosque Using Photoshop.	Enhancing adolescents skills and creativity through graphic design training using Adobe Photoshop, while also encouraging self-development and entrepreneurial potential.	The primary theoretical framework employed in this research is the participatory theory in education and communication empowerment, which is specifically operationalized through the <i>Participatory Action Research</i> (PAR) approach.	The research method used in this research is <i>Participatory Action Research</i> (PAR), a collaborative and participatory approach to inquiry that actively incorporates participants in the processes of reflection, problem solving and action.	The findings of this research indicate that graphic design training uses Adobe Photoshop, implemented through the <i>Participatory Action Research</i> (PAR) approach, successfully enhanced the creativity, understanding, and economic potential of the youth at Nurul Huda Mosque through hands-on practice and participatory learning.	Similarity: This research emphasise graphic design as a tool for increasing creativity. Difference: The most significant distinction resides in the case circumstances, notably in terms of location and the specific applications or technologies used.
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3.	The Utilization of Open artificial intelligence DALL-E 2 Technology in Enhancing the Creativity of Graphic Designers within the Indonesian Graphic Design Community.	This study aims to provide an in-depth understanding of the utilization of open artificial intelligence DALL-E 2 by graphic designers within the Indonesian graphic design community.	This research integrates the <i>Technology Acceptance Model</i> (TAM) as the primary conceptual framework to understand the factors influencing graphic designers' perceptions and intentions in using open artificial intelligence DALL-E 2.	This study employs a qualitative approach to address the research questions. The qualitative method was chosen for its ability to provide an in-depth exploration of the participants' experiences, perceptions, and understanding.	The findings of the research is open artificial intelligence DALL-E 2 technology significantly enhances the creativity of graphic designers within the Indonesian graphic design community. The technology encourages creative exploration, pushes the frontiers of creativity, and fosters design innovation by producing a diverse spectrum of distinct design possibilities.	Similarity: This research use a qualitative methodology, using in-depth interviews as the major tool for investigating practitioners experiences with digital technology. Difference: The most striking differences are the research location and unique technical focus of each research.
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Table 1.1 Previous Research

1.2.2 Theoretical Framework

1.2.2.1 Consumer Behavior Theory

This research focuses on the experience of graphic designers in Yogyakarta using technology advancements to create works that are more creative, interactive, visually appealing and efficiently produced within the creative industry. The discussion pays attention to graphic designers professional experiences in engaging with a range of design software and digital technologies as they respond to escalating expectations for creativity, interactivity, visual quality and efficiency in production within the creative industry.

This originality of the research is that it focuses on graphic design processes in Yogyakarta and investigates how technology is used to develop design outputs that react to increasingly sophisticated market demands. By placing technology use within everyday creative processes, the study goes beyond basic talks of digital technologies and examines how various applications are incorporated into graphic creation in context. This emphasis on actual involvement with a variety of design tools tackles an area that has gotten little attention in earlier research, providing a more grounded and nuanced contribution to current study.

As a result, the research provides new insights into how graphic designers use technology tools to create innovative and visually appealing work. At the same time, it highlights the variety of obstacles and possibilities that graphic designers face as they negotiate and adapt to constant technology advancements in the creative industry.

To address the fundamental research issue of the experience of graphic designers in Yogyakarta using technology advancements to create works that are more creative, interactive, visually appealing and efficiently produced within the creative industry, this research employs Consumer Behaviour Theory as a major analytical framework. According to Kotler and Keller (2016:179) define *Consumer Behavior Theory* as the study of how people, communities and organizations for choosen, acquire and utilize ideas, products or services to meet their wants and aspirations. Within the context of graphic design practice, this viewpoint provides a valuable lens for identifying differences in customer segments created by lifestyle, personality traits and preferences. Such insights are especially important in current design and digital communication, where behavioral targeting has emerged as one of the most effective marketing methods in campaigns that depend largely on data-driven and technology-mediated approaches.

According to Kotler and Keller (2016:181), consumer behavior is a continuous and interrelated process that begins before consumption, continues through the act of use and remains thereafter. These steps do not act in isolation, but rather create a cohesive decision-making path from the consumers perspective. Within this sequence, the post-consumption stage is especially important since it serves as a point of evaluation during which emotional reactions and cognitive judgements are formed by the consumers lived experience with the product or service.

Within the post-consumption stage, one prominent behavioral outcome is consumer satisfaction, commonly understood as a sense of pleasure or disappointment that arises from an individual evaluation of their experience after using a product or service (Kotler and Keller, 2014:49). This evaluative reaction goes beyond initial impression, since satisfaction has a significant impact on brand image, consumer loyalty and good communication. Consumers that have great experiences are more likely to make repeat purchases and suggest the product to others, which contributes to long-term business profitability. Such trends highlight the strategic value of post-consumption evaluation in shaping long-term consumer behavior and decision-making.

The designers can be seen as consumers within the professional activity of graphic design, particularly in terms of the software and digital technologies they frequently use. Their level of satisfaction with these technologies is an assessment of how well the applications encourage creative processes, improve workflow efficiency and meet professional standards.

1.2.2.2 User Experience

Interaction may be defined as a communication process in which two or more entities impact one another. Such engagement requires reaction from both participants and tends to lose efficacy when impediments interrupt the communication. Within this larger framework, human-computer interaction stands out as a reciprocal communication process between users and computer systems, in which both work together to achieve certain goals.

According to ACM SIGCHI, human-computer interaction is more than just usage which means a discipline that studies the design, evaluation and implementation of interactive computing systems for human use, as well as the broader phenomena that arise from these interactions. From this perspective, interaction serves as a communication link between people and computer systems, with user experience playing a critical role in defining visual design that is intuitive, engaging and effective. The success of this connection is realised by

purposefully planned visual compositions that help users achieve certain goals, notably in the professional responsibilities performed by graphic designers. Typography, colour palette, iconography, layout structure and motion provide more than just visual appeal. They serve as communication devices, transmitting information, directing navigation and articulating the system basic logic. In this view, visual aspects become essential components of interface design, allowing systems to be not only operationally useful but also capable of improving the overall quality of interaction between people and technology.

User experience is important in graphic design because it shapes outputs that are not only visually appealing, but also functionally dependable and sensitive to the dynamics of digital interaction. Users are positioned as participants in design decisions through methods such as visual exploration, careful selection of graphic elements and iterative interface testing, rather than as passive recipients. When an interface successfully engages users emotionally and cognitively through cohesive aesthetics, intuitive navigation patterns and relevant feedback mechanisms, it fosters a sense of connection to the system. This type of involvement, while not always obvious, adds to increased levels of happiness and over time, increases customer loyalty.

Within situations such as professional design software and interactive web platforms, users ability to interpret interface hierarchies, respond appropriately to visual signals and adapt features to their personal workflows has a significant impact on how interaction quality and usability are perceived. This process is rarely linear, since periods of clarity might coexist with tiny frictions that affect overall judgement. In this perspective, user experience appears not just as an aesthetic element, but also as a fundamental component in the creation of graphic design that combines visual appeal with functional relevance and practical usefulness.

Within the broader discourse of human-computer interaction, where visual articulation, emotional reaction and cognitive processing converge, user experience cannot be limited to a result of design efforts. It is better understood as a reference that helps graphic designers create and develop user interface. User experience provides designers with empirical insight into how visual elements are viewed, understood and used in everyday circumstances, frequently showing gaps between planned function and actual user behaviour. Therefore, a closer look into user experience is consequently required to understand how people react to technological systems, since user experience serves as a significant indicator of the effectiveness and quality of interaction between people and digital technology.

According to ISO 9241-210, user experience is an individual perceptions and responses resulting from the use or anticipation of a product, system or service. Therefore, user experience acts as an evaluation lens that goes through which degrees of pleasure, comfort and self-satisfaction with a technology.

Mendiola, B. Wiryawan, emphasises a crucial assumption of user experience that people have the authority to determine the level of their pleasure. This viewpoint contends that the success of digital design cannot be assessed merely by technological advances or functional completeness. Ease of use, clarity of engagement and the level of enjoyment provided to users are all equally important. Regardless of its technical sophistication, a design that becomes overly complicated or difficult to comprehend risks undermining the same experience it seeks to better.

When developing user-centred design, it is critical to recognise the end user as the primary authority in deciding satisfaction. Even the most technologically advanced or feature-rich system might be considered as ineffective if it fails to deliver a sense of comfort or real value in usage. In an increasingly complex digital world and multidimensional digital world, user experience principles that prioritise ease of use and perceived happiness have steadily emerged as key measures of system quality (Zhou, 2019). A well-designed user experience makes consumers feel supported and empowered by the tools they interact with, then it is considered successful. In this perspective, user experience should be viewed not as an insignificant, but as a critical component that profoundly influences the success and relevancy of any digital product or service.

From this perspective, the capacity of design applications to satisfy user expectations is heavily influenced by the effectiveness with which essential factors determining the quality of interaction are incorporated. Dimensions such as usability which shows ease of use, usefulness in terms of functional value, emotional impact and meaningfulness serve as crucial indicators for analysing effectiveness, efficiency and all user satisfaction holistically. These features interact dynamically, shaping how users perceive and interact with a system over time. A thorough grasp of user experience should thus be positioned as a core basis in both the design

and assessment of digital design applications that are really focused on users wants and expectations.

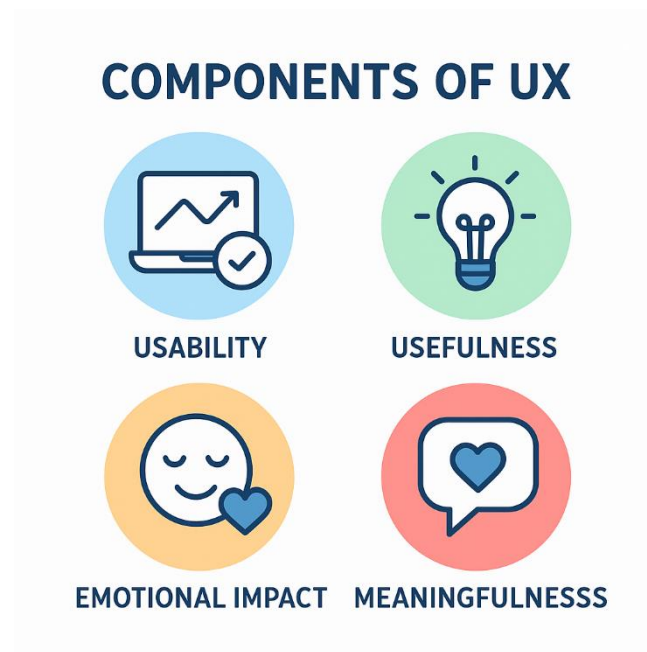


Figure 1.1 Component of UX

Component of User Experience:

a. Usability

The concept of usability was a major focus of human-computer interaction (HCI), the larger academic framework which user experience then developed. Broader experience features were not fully investigated at the time since the analytical lens was focused exclusively on how precisely and efficiently people could interact with computer systems.

According to ISO 9241-11, usability is defined by a number of interconnected factors that together characterise how well a system helps users accomplish their objectives in a particular usage scenario.

- Ease of use
- User performance and productivity
- Efficiency
- Error avoidance
- Learnability
- Retainability (ease of remembering)

Usability remains a critical component of the user experience. As focus in the area has shifted toward aesthetic refinement and emotionally resonant features of user experience, key usability concepts have occasionally faded into the background. This conflict is reflected in contemporary interface developments. Flat design for example, is typically commended for its clean and modern appearance, but in fact it can hide important visual affordances, making it difficult for users to discern between interactive and static material. When such indications are reduced, consumers are forced to rely on trial and error rather than intuitive comprehension. This implies that without a strong usability foundation, other experiential characteristics cannot work properly, because bad usability undermines the fundamental structure on which meaningful and engaging user experiences rely.

b. Usefulness

Another important aspect of user experience is usefulness, which is often overlooked in talks about system design. Usefulness refers to the extent to which a software program or digital system provides real functional value to its users. Basically, this dimension is inextricably linked to the robustness of the backend operations, while mostly invisible at the interface level, decide whether users can complete tasks and support their activities with little friction. In this perspective, usefulness serves as the rational basis for a systems existence, providing tangible justification for its relevance by demonstrating how well it meets practical requirements and purpose of goals.

According to Hassenzahl and Roto, usability and usefulness are defined as the degree to which a system allows users to achieve their intended goals, which can range from everyday behaviours like reading electronic mail to more interactive acts like leaving comments on social media sites. This point of view emphasises that meaningful user engagement is not driven just by visual appeal or technical innovation, but by the systems tangible ability to facilitate purpose activity. When a digital system repeatedly promotes goal attainment, its practical usefulness becomes clear, strengthening the users feeling of relevance and long-term engagement with the interface.

c. Emotional Impact

The third dimension is emotional impact, which represents the emotive aspect of the user experience. Rather than being confined to functional outcomes, this component captures how users feel during and after interacting with a system, including feelings of pleasure, comfort and even frustration.

According to Norman, emotional responses arise from the interaction of users expectations, perceptions and actual experiences with an interface. These emotional reactions, while sometimes subtle and subjective, have a significant impact on overall user satisfaction and whether a system is considered as interesting, trustworthy and worth continuing to use.

Although talks of emotion have occurred in previous research on human-computer interaction, Norman contribution represented a watershed moment by putting emotional reactions at the core of everyday product design. His point of view challenged the long-held supremacy of strictly functional factors, arguing that consumer sentiments are not accidental, but rather crucial to how goods are perceived and judged. This transition has now been reflected in the field institutional growth, most notably through academic forums like the biennial design and emotion conference. Such forums represent an increasing realization that the study of design and emotion necessitates multidisciplinary collaboration, relying on ideas from psychology, design studies and technology to better understand how emotional experience impacts meaningful interaction.

From a technological sense, every user experience is intrinsically emotional since it is constantly filtered via the users subjective perceptions and interpretations. However, certain aspects of user experience are more obviously emotional than others, particularly those that deal with personal meaning and are felt immediately during engagement with technology, regardless of how complex or basic the system is. These emotional qualities take the experience beyond mere contentment, allowing for sentiments like delight, excitement or a sense of self-expression. In some situations, such responses may strengthen, resulting in emotional consequences that are not only memorable but also significant in moulding how users interact with and value a technology system over time.

d. Meaningfulness

While usability and emotional impact are often associated with immediate engagement, meaningfulness develops gradually, determining how a product or artefact comes to matter in a users life over time. This resulted from a personal connection between the product and its users that developed over time. This type of meaning may be seen in the strong attachment that many people create with their smartphone, to the point that prolonged separation may cause feelings of disquiet or even physical discomfort. In a different setting, a climbers feelings of safety and security when using a portable GPS gadget reveals a meaningful link based on trust, dependency and the perceived usefulness of technology in supporting lived experience.

Meaningfulness is strongly related to the phenomenological tradition, which studies how people perceive the world and generate meaning via their interactions with daily items. According to this viewpoint, it develops from lived experience, moulded by context, memory and human interpretation, rather than being inherent in the item itself. This method allows designers to explore how encounters with goods are felt, remembered and integrated into everyday routines, rather than focusing just on functionality or efficiency.

Usability prioritises clarity, efficiency and the users ability to comprehend and use system features, all of which remain critical foundations in modern user experience practice. Meanwhile, usefulness refers to the extent to which a system delivers features that are truly relevant and supportive of users goals, thus offering a reasonable explanation for the products existence and continued acceptance.

Emotional impact refers to the emotional aspect of user experience, which includes the feelings and types of emotional involvement that develop during contact with a system. This dimension goes beyond simple pleasure to include more subtle emotions like delight, dissatisfaction and a sense of connection with the interface. And then meaningfulness refers to a broader and more durable realm in which the interaction between the user and the product, in this case a design application, evolves progressively over time. Through regular usage and personal relevance, the product gains subjective importance that is consistent with the users experiences, values and the users life.

Understanding these four components is therefore critical for creating user experiences that are not just useful and delightful, but also capable of conveying emotional depth and existential meaning. This viewpoint contends that user experience cannot be limited to solely technical or visual considerations. Rather than, it must be handled as a psychological and philosophical matter, requiring a comprehensive and multidisciplinary framework that takes into the complexities of the user experience as a whole.

1.2.2.3 Graphic Design in Contemporary Digital Creative Industry

According to Chen (2019), communication has an important role in maintaining everyday relationships between living creatures, notably in human interactions. Aside from its instrumental role, communication facilitates the establishment of interpersonal ties, promotes cooperative action and encourages shared understanding among persons. In the current social situation, it underlies a wide range of human behavior, from informal social contact to organized collaboration aimed at common goals. Individuals use communication processes to

explain ideas, convey emotions and exchange information, while also comprehending and responding to signals they receive. However, the success of communication is not always obvious, as meaning is influenced by context, experience and interpretation, implying that communication is both a practical requirement and a complicated human activity.

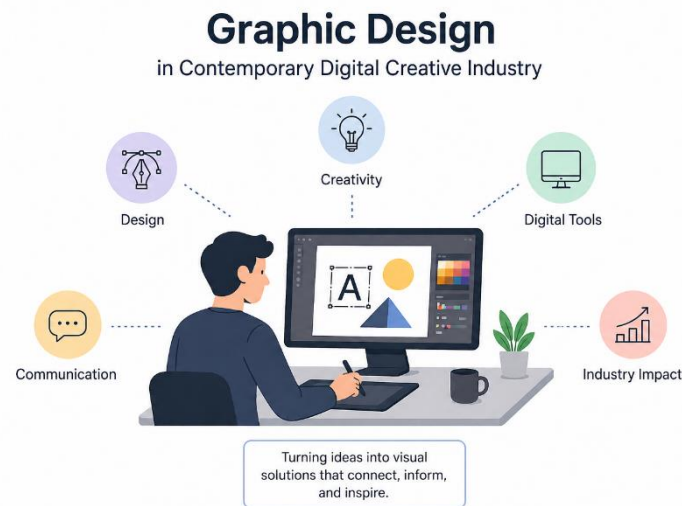


Figure 1.2 Graphic Design in Contemporary Digital Creative Industry

Graphic design is a branch of art and visual communication that plays an important role in many sectors and businesses nowadays (Alvarez, 2018). Graphic designers are responsible for developing effective, engaging and emotive visual communications for clients and target audiences. They help create design components such as logos, product packaging, commercials, promotional material and more. The fast growth of information and communication technology has had a significant influence on the field of graphic design, offering a variety of novel software and tools to aid in the creative process and the creation of design work (E. M. Starkey, 2019).

In addition to the rapid advances in information and communication technology that have improved graphic design practices, additional changes have also been brought about by the incorporation of artificial intelligence, which has transformed not only the tools used but also the working methods, aesthetic standards, and productivity focus of the modern design industry.

Graphic design AI set out as a basic partner in productivity through the year 2025. The main concern was not only efficiency but also enhancement for output quality. The designers practiced purple tools to come up with polished, top-quality mockups in a jiffy, hence,

accelerating the unreal long processes from days to seconds. The style to follow was super-clean and extremely digital, mostly found on the blending of colors and the perfect picture composition. The brands' uptake of these tools to enhance their visual content was so quick that it was hard to distinguish one company from the other, even though the images were all what you might call breathtaking from a technical standpoint. The "*tech-first*" style was a mark of prestige, indicating that the company was up-to-date and well-prepared for the future (stephnschweitzer, 2025).

This statement is supported by the observation that the use of AI in design practice has changed the industry standard for what is considered "visual quality" in addition to accelerating production. In this context, the design's ability to maintain uniqueness and communicative power amid the homogenization of visual styles generated by algorithms becomes a more important indicator of quality than technical accuracy. The results of this study show that while AI can quickly deliver clean and accurate output, designer participation remains vital in maintaining concept originality, audience sensitivity and message context. In other words, the strategic value of a designer lies in their ability to transcend these boundaries through imaginative interpretation and deeper visual meaning as technology progressively standardizes aesthetics.

In the digital era, graphic design has evolved from mere technical execution to a more elaborate blend of art, technology, and strategic thinking. Artificial intelligence stifles creativity by introducing a trend towards visual standardization, even as it greatly improves efficiency and technical quality. Because of this, the work of designers is becoming increasingly important, not only as technical executors but also as creative decision makers who ensure that visual communication is meaningful, unique and contextually relevant. Therefore, the true value of modern graphic design lies in its ability to strike a balance between human creativity and technological improvement, enabling designers to create work that is not only accurate and efficient but also distinctive and communicative.

A structuralist approach refines this concept by situating graphic design inside an organized system of communication. In the system, the meaning of every single visual element is determined by its interactions with other components such as colour contrasts, typographic hierarchies, spacing settings and visual rhythm. That meaning is derived from the entire structure rather than individual pieces considered independently. This viewpoint encourages

designers to think in relational terms and admit that effective visual communication is dependent on the coherence and interaction of all aspects within a cohesive design system.

These theories teach that graphic design is a complex and multidisciplinary process that includes elements of art, technology, communication and cultural meaning. Graphic designers are expected to have not just visual skills, but also theoretical knowledge of how people perceive and interpret information in a larger social context.

It is important for graphic designers to understand their role in delivering effective and concise messages, as well as to continually improve their knowledge and understanding of visual communication dynamics. So in essence graphic design is more than just a component of visual design, but also an important component in the communication and interaction of humans in their daily lives.

According to Centarova (2020) creativity is an opportunity to create, develop and see things from different perspectives. Every person has a certain creativity, which he can develop to a certain extent. A creative person can discover original, new solutions and make meaningful use of them. Creativity as the ability to create new solutions and problem-solving becomes a competitive advantage positively influencing economic and social development derived from talented people forming the creative class. Creative people only come up with new ideas or technologies if the right conditions are created in the form of a creative and open environment. If we want to support the development of a creative economy, it is necessary to ensure a certain degree of maturity of the economic, technological, social and cultural environment.

Creative industry may be defined as an economic sector that generates value via individual creativity and artistic ability, with intellectual property serving as the primary resource. At its foundation, this business converts abstract concepts into assets with concrete economic value. A corporate logo, an original artwork created for display, sale or a digital application built for public use are all examples of how creative work is eventually turned into marketable commodities. In this view, creativity is more than just an expressive act, it is also an economic force whose value arises via production, distribution and trade.

According to Rosyda defines the creative industry broadly as all processes of invention, creativity, ideas and thoughts from a person or group that may subsequently be translated into works or goods. The term “creative industry” combines two words such as industry and creativity. The Big Indonesian Dictionary defines industry as the practice of processing or

processing commodities utilising facilities and equipment, whereas creative is an adjective that describes an individuals or groups ingenuity and capacity to produce (Rosyda, Gramedia blog).

According to this concept, the creative industry is a location where controlled industrial processes intersect with the imaginative and innovative potential of human creativity. In this setting, creative activity is no longer only an individual expression but also it has matured into an organized economic sector that contributes meaningfully to progress. This insight lays the way for a better understanding of how many creative areas function systematically and strategically in today economic dynamics.

In the fields of design, advertising, architecture, fashion and multimedia are among the many fields that make up the creative sector. It is an important part of the overall economy, not only offering new goods and services but also creating job possibilities and promoting urban revitalization (Suryadharma, et al., 2023).

Therefore, the several key findings may be gleaned from the numerous ideas that underpin creative industry research. The creative economy paradigm emphasizes that ideas, creativity and intellectual property are the primary resources for creating economic value in the modern period. Individual creativity may be translated into economic assets in the form of high-value goods and service.

From the standpoint of sustainable development, the creative industry plays a critical role in furthering inclusive and equitable development, particularly through processes that build and empower rural communities. At the same time, theoretical perspectives on innovation and competitive advantage imply that the ability to innovate is not only desirable but also necessary for maintaining competitiveness, particularly among small and medium-sized businesses functioning in this area. When taken together, these theories suggest that the creative sector serves not just as an economic driver, but also as a vehicle for pursuing social inclusion and long-term competitiveness in a mutually reinforcing manner.

Within the Triple Helix paradigm, collaboration between industry and academia emerges as a vital method for improving research quality, increasing transparency and ensuring that academic outputs stay responsive to changing market demands. However, this structural view alone may not be enough to properly explain the dynamics of creativity. Psychoanalytic theory suggests that creative expression is heavily influenced by psychological processes and lived experience, adding a more personal dimension to how creative potential develops. Simultaneously, these perspectives suggest that the fostering of creativity is dependent not just

on institutional synergy and systemic coordination, but also on a deep knowledge of human subjectivity and drive.

When combined, these theoretical approaches show that the creative sector cannot be regarded only as a vehicle for creating economic value. It includes social relationships, cultural manifestations and psychological processes that influence how creativity is created, disseminated and experienced. However, there is still some confusion about how these factors interact across different contexts and sizes. This complexity highlights the need for a multidisciplinary strategy that blends economic research with social, cultural and psychological insights to promote the long-term and sustainable growth of the creative economy in a more complete and balanced manner.

The study uses user experience as the main theoretical framework in analyzing the findings, which are operationalized through four dimensions namely usefulness, benefit, emotional impact and meaningfulness. Data analysis is done through thematic analysis approach to identify patterns of designer experience in utilizing digital technology. In the interpretation process, this study is supported by communication theory, especially interpersonal communication and visual communication, to understand graphic design as a process of conveying messages between designers and audiences, where visual elements function as communication media that carry meaning. In addition, the conceptual framework of graphic design in contemporary digital creative industries is used to place graphic design practices within the dynamic landscape of digital creative industries, while explaining how technological developments, including artificial intelligence, are reshaping creative processes and visual communication practices. Furthermore, the study also adopts the perspective of consumer behavior in the use of digital technology to understand how graphic designers as users select, adopt, and evaluate various design tools and applications based on their needs, perceptions, and experiences in the creative process. Thus, this overall framework allows a comprehensive analysis, not only of the results of design as a communication product, but also of the process of interaction between designers and technology that shapes the experience, meaning and practice of graphic design more broadly.

1.3 RESEARCH METHODS

1.3.1 Research Type and Approach

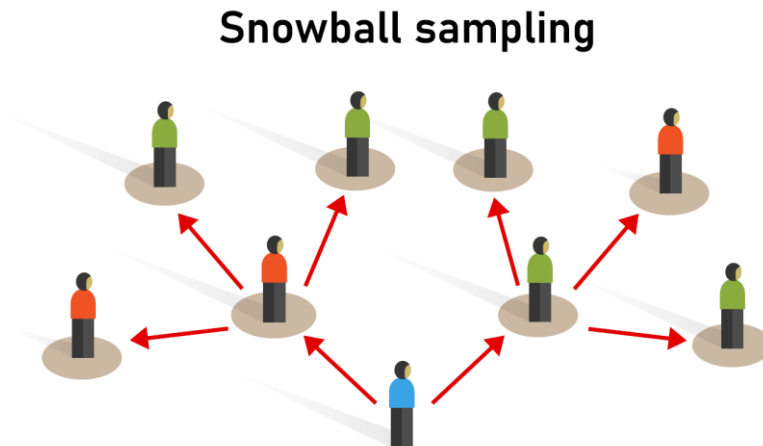


Figure 1.2 Snowball Sampling

The research method that will be used is the qualitative research method using snowball sampling. Qualitative methods are used because they explain and illustrate a phenomenon in a systematic and thorough manner based on the facts presented. This research will be conducted in collaboration with graphic designers who have experience in their field and who use technological advancements to enhance their creativity in creating more interactive, appealing and timely artwork.

The research method used is snowball sampling. Snowball sampling is a method for gathering large amounts of information. Using this method, many potential respondents were contacted and asked whether they knew anybody else with similar characteristics to those needed for the research. The initial contact will help to receive more responses through recommendations. To achieve the research goal, this technique was used with the in-depth interviews technique and observation.

In the snowball sampling method, identification begins with a person or a situation that meets research criteria. Then, based on the presence or absence of a network, the next respondent or sample unit may be identified. As a result, the sampling process continues until sufficient information and sample size are obtained to allow for analysis in order to improve research outcomes (Nurdiani, 2014).

Selection of informants in this study was conducted purposively, taking into account the suitability between the characteristics of informants and research objectives. Informants are

selected for their hands-on experience in the practice of digital graphic design, particularly in the use of technologies such as design applications and artificial intelligence in the creative process. Key criteria include graphic designers actively working in the creative industries, having relevant professional experience, and intensively using digital tools as part of their workflow. The selection is based on the need to obtain in-depth and contextual data, so informants are not chosen at random, but based on their ability to provide insights relevant to the focus of the study.

Categorically, the informants in the study can be classified by their level of experience, type of work (freelancers or designers working in agencies or agencies) and the intensity of the use of digital technologies in their design practice. This categorization aims to capture a diversity of experiences and perspectives, ensuring that the analysis is not homogeneous but rather represents the broader dynamics within the digital graphic design industry.

The sampling technique used is purposive sampling, which is then developed through snowball sampling approach. At the initial stage, the researcher identifies several key informants that meet the criteria, then from these informants, recommendations are obtained for other informants with similar or relevant characteristics. Thus, the sampling process in this study was strategic, targeted, and focused on the depth of the data, not just the number of participants.

1.3.2 Research Time and Location

The research study was carried out in Yogyakarta, where the visual arts continue to flourish in a particularly dynamic manner. New works arise on a regular basis, many intense fine arts activities, as well as the ongoing development of art spaces that serve as venues of production, discussion and public involvement. Along with these advances, several art communities have emerged, each defined by its own set of concepts, ideological views, creative paths and artistic traits. A similar trend may be seen in the field of graphic arts, where diverse groups have arisen with a strong shared commitment to promoting graphic art approaches. These groups are motivated by a persistent desire to create new works and engage in experimentation and exploration, not just as aesthetic exercises but also as strategic efforts to expand the potential of graphic art and increase its appreciation among a wider range of society (Mahendrapati, 2018).

Aside from being a source of new artwork, this location is also an active space for creative experimentation and critical study. With the development of art spaces and constant

rise of art groups, an atmosphere is created in which artists may communicate and negotiate varied conceptual frameworks and ideological stances. Within this context, creative activity is not limited to production, but rather emerges from continual debate, reflection and interaction, which create Yogyakarta nature as a dynamic cultural ecosystem.

The graphic arts community in Yogyakarta is distinguished by a strong dedication to technical advancement and the ongoing creation of new works. This dedication is demonstrated not just via the discovery of findings, methodologies and visual languages, but also through concerted attempts to increase public involvement with graphic arts. Such methods imply that creative work goes beyond personal expression and evolves into a communal process in which relationships, shared meanings and collective appreciation are progressively developed within the larger society.

Yogyakarta growth of diverse art activities and art places demonstrates that art can be an important component in social and cultural development. It creates an environment in which art may be accessed by all levels of society, promoting more engagement and enjoyment. As a result, art in Yogyakarta not only becomes more than just a cultural product, it is also a potent agent of change which can impact how people think, feel and interact.

Yogyakarta dynamic art ecosystem exemplifies how creative growth can revitalise metropolitan identity, making it more lively and culturally diverse. The evolution of visual arts in this place demonstrates that, with adequate support, art can grow and flourish to contributing significantly to a community identity and success.

This research will be conducted either offline (through direct field visits) or online, depending on the feasibility and access. Participants will be selected from among graphic design practitioners and creative professionals in Yogyakarta, identified through the snowball sampling method. For this research plan, it will be carried out around March to May or can change by considering the conditions and situations whether it is possible.

1.3.3 Resource Persons / Research Informants

The selected participants are graphic designers active in the creative industry or individuals with demonstrated expertise in graphic design in Yogyakarta. Selecting participants with relevant professional experience will ensure that the data obtained has a high value in supporting the findings of this research.

1.3.4 Data Collection

The following are the techniques or ways of collecting data that will be used in this study:

a. Primary Data

Semi Structured Interview

Data were collected through semi-structured interviews using a pre-prepared list of questions presented to each candidate or informant in the same order. This structured interview is designed to ensure that each interview process is conducted consistently and fairly, allowing each candidate or informant to be evaluated based on the same criteria. These interviews were conducted face-to-face or remotely with graphic designers in Yogyakarta.

Observation

The observation approach entailed visiting multiple workspaces in Yogyakarta to study design techniques, workflows and interactions among graphic designers, as well as catch them carefully for precise information. This observation employs a participatory strategy, with the researcher actively engaging in the observed occurrences. Participatory observation provides a better knowledge of the contextual aspects that influence creative decision-making and dynamics among graphic design.

b. Secondary Data

Secondary data is obtained from reviewed journals, academic publications, research papers and trusted web sources in order to contextualise results and enhance theoretical foundations.

1.3.5 Data Analysis

The main approach in this research to assess qualitative data is to use the thematic analysis method. According to Braun and Clarke define thematic analysis as a systematic approach of discovering repeating themes and patterns within a dataset, allowing researchers to move beyond surface descriptions to a more deep interpretation of meaning. Its adaptability makes it ideal for research that aims to trace coherent patterns throughout a phenomena while staying mindful of how those patterns are affected by the researcher analytical approach (Fereday and Muir Cochrane, 2006).

In a similar context, according to Holloway and Todres, thematic analysis as a fundamental framework for interpreting meaning in qualitative research. Although it is not a semiotic technique, this method allows for an analysis of how participant visual and conceptual symbols relate to wider cultural norms and social circumstances. Within current qualitative research, thematic analysis thus provides a solid foundation for investigating the relevance of emergent themes and the links that link them across the data corpus.

The procedures for data analysis and interpretation utilizing the thematic analysis model are as follows:

1. The first step is researchers begin with data familiarisation, which involves reading and reflecting on the dataset to comprehend its context and content.
2. In the second step relevant data segments are labelled systematically using either a deductive (based on existing theoretical frameworks) or inductive technique (based on data finds).
3. The third step is theme development. Themes will emerge from the coded data. Themes are patterns that show consistently in data and represent essential characteristics of the study issue.
4. The fourth step is to involve doing an assessment and reflection. Throughout the analytical process, it is important to continuously review and reflect on the developing data. This entails thoroughly analysing the data, conclusions and interpretations to guarantee consistency and correctness.
5. The final step is to create a detailed report on the analysis results. The report should include a discussion of the theme results, their interpretation and their relevance to the research questions addressed.

By using the thematic analysis technique, the researcher may find key patterns in the qualitative data collected from in-depth interviews with graphic designers in Yogyakarta. Thematic analysis enables researchers to investigate the underlying meaning of data and present it methodically in the research.

CHAPTER II

2.1 GENERAL DESCRIPTION OF RESEARCH OBJECT

2.1.1 The Dynamics of multi-sectoral Creative Industry Development in Yogyakarta

According to Simatupang, the creative industry is a sector based on the talent and creativity of individuals who have the potential to improve welfare. According to the Ministry of Trade of the Republic of Indonesia, creative industries are defined as industries that arise from the utilization of skills, creativity and talent owned by individuals to create welfare and employment. The industry focuses on empowering the creative potential and creativity of individuals. Howkins states that the creative industry is characterized by its emphasis on creativity in producing or creating various creative designs that are attached to the goods or services produced.

According to Rosyda defines the creative industry broadly as all processes of invention, creativity, ideas and thoughts from a person or group that may subsequently be translated into works or goods. The term “*creative industry*” combines two words such as *industry* and *creativity*. The Big Indonesian Dictionary defines industry as the practice of processing or processing commodities utilising facilities and equipment, whereas creative is an adjective that describes an individuals or groups ingenuity and capacity to produce (Rosyda, Gramedia blog).

Yogyakarta has considerable potential as the center of the creative economy, a potential that is rooted not in the abundance of natural resources but in the power of human capital and culture. Compared to many other areas, Yogyakarta is relatively limited in extractive resources, which limits its ability to rely on resource-based industries as the foundation of the economy. However, these apparent limitations are offset by a long and deeply rooted cultural tradition, supported by a creative minority with strong literacy and scholarly practices. The existence of 133 higher education institutions further strengthens this ecosystem, fostering knowledge in various academic fields and fostering young innovators. These creative actors, particularly those involved in campus-based industries and Information Technology, operate both in urban centres and within craft groups in rural areas. Overall, this condition shows that Yogyakarta economic resilience is basically supported by creative human resources that are able to encourage sustainable development (Prayudi, Kartika, and Ninik, 2020).

The evolution of the creative industry in Yogyakarta has followed a dynamic and analytically intriguing trend. Yogyakarta is well-known as the place of education and culture, and it has established a variety of creative sectors by combining inherited cultural traditions with modern innovation. Rather, it depicts a continual confrontation between established artistic practice and emergent creative expression influenced by societal change. Art school institutes, notably the Indonesian Institute of the Arts (ISI) Yogyakarta, have had a significant impact on this environment by creating artists and designers with strong conceptual and technical backgrounds. Many of these graduates go on to actively participate in creative groups that benefit the local ecology through exhibits, art festivals and collaborative initiatives. Through these activities, Yogyakarta creative production transcends individual successes and becomes part of a communal cultural process that supports the special place position as a hub for the growth of dynamic creative industries.

Traditional crafts continue to be the structural foundation for creative industries in Yogyakarta. One of which is *batik* making is always evolving, with the introduction of new themes and more efficient production procedures. In Kotagede, *silversmithing* has spread abroad, establishing a presence in the international market. *Ceramics* from Kasongan place have become known as a distinctive manifestation of clay art, while leather goods from Manding are regularly transformed into fashion items that meet various quality criteria. Alongside these established industries, the expansion of the digital economy has added a new layer of creative activity, driven largely by university students and graduates. The increasing presence of coworking spaces and creative hubs is progressively creating an environment that supports local software developers and programmers while driving the growth of the game and mobile app production sector.

Aside from traditional crafts, the culinary and fashion industries exhibit a consistent and clear upward trend. Culinary players are continuing to reinterpret local cuisine traditions via product innovation and the establishment of cafes and restaurants with different creative themes. The fashion industry is becoming more defined by local companies that mix current aesthetics with subtle historic allusions, a movement mostly pushed by young designers whose work has begun to get national notice. Creative tourism has also gained traction as a result of the establishment of creativity-based towns, hands-on craft workshops and more inventive ways to historical tourist management. A similar trend can be seen in the film and animation industries, where local production companies and animation studios are generating works of high quality. These advancements are aided by an ecosystem that is increasingly maturing, as

seen by ongoing government efforts, the expanding presence of creative sector organizations and associations and increased access to various types of finance.

At this point, it is apparent that Yogyakarta has distinct advantages in both the creative economy and tourist sectors. These capabilities are consistent with the national policy approach that prioritises creative economy growth, as seen by the merger of tourism and creative economy under a single ministerial framework. Such an institutional setup implies an understanding of the two areas tight interconnectedness. In practice, this link distinguishes Yogyakarta from economic progress. Creative activities help to improve the quality of tourism by creating attractions, experiences and visual identities that increase destination attractiveness. At the same time the growth of tourism tends to stimulate an increase in the demand for creative works, as destinations need new forms of design, storytelling and cultural products to maintain the interest of visitors.

The creative economy serves as one of the main drivers of economic activity in Yogyakarta. Most of these sectors operate on a small industrial scale, but provide an important source of income for most locals. Long before the issuance of *Presidential Instruction No. 6 of 2009* on creative economic development, the creative industry subsector as recognized by the Ministry of Tourism and creative economy (*Kementrian Pariwisata dan Ekonomi Kreatif*) has taken root and developed organically in the region. This historical continuity becomes even more convincing if we consider the spatial patterns of its growth. Creative economic activity in Yogyakarta is not concentrated in a single district or enclave, but is spread across different regions, each with its own capacity to foster creativity and transform it into products with real market value. In this context, creative human resources can be understood as widespread and socially embedded throughout Yogyakarta, forming a resilient foundation for the region creative economy (Prayudi, Kartika, and Ninik, 2020).

Despite its steady progress, the creative industries in Yogyakarta continue to face a number of structural challenges. Human resource capacity building remains a pressing issue, particularly in the areas of managerial competence and market-oriented mindset. Adoption of digital technology also demands more than just technical familiarity, as it requires a shift in mindset towards data-driven promotion and platform-based distribution. Standardization of product quality raises another layer of complexity, especially for small-scale creative businesses looking to enter international markets. However, these constraints do not only serve as obstacles. These constraints also pave the way for expansion, especially in export potential

and broader market penetration. The economic implications of the growth of the creative industries are already visible through their contribution to the regional gross domestic product, their ability to work forces and the resulting spillover effects in various related sectors. These dynamics suggest that Yogyakarta has managed, perhaps not without tension, to transform its limited natural resource base into a comparative advantage rooted in creativity and cultural capital.

2.1.2 Graphic Design Profile in Yogyakarta

Graphic design is a form of visual communication that combines images, illustrations, text, lines and other visual elements within a medium, shaped through the creativity of a graphic designer. As a professional or specialist, a graphic designer is someone who processes and utilizes these visual elements to convey the intended message.

In a different context, graphic design consists of two fundamental terms. The word “*design*” refers to a creative approach to crafting aesthetics, while “*graphic*” pertains to the knowledge of designing points and lines that play a role in creating informative images related to the printing process. Therefore, graphic design is a discipline oriented towards creativity for the purpose of creating a visual design or image (Assidiq, M. Z. 2023).

The ability of a designer at the early development of graphic design is demonstrated through creativity in processing ideas and drawing skills. Drawing skills have become an essential requirement for becoming a graphic designer. Techniques can vary and the types of tools that facilitate the drawing process are continuously being developed. However, how to apply color, create an illustration, draw letters and integrate them into a good layout and composition are crucial factors that determine whether a graphic design work is considered good or not.

A graphic designer expresses their ideas and concepts through a highly dynamic creative process. This creative process is influenced by the background of political and economic conditions, the needs of the target audience, as well as the social and cultural contexts in which the graphic designer operates. When the internet had not yet emerged, references were also very scarce, putting the existence of a graphic designer to the test through their creativity in producing innovative, aesthetic, communicative and effective works in accordance with the users objectives (Migotuwio, N. 2020).

The special region of Yogyakarta, widely regarded as one of Indonesia cultural centers, has experienced significant growth in the field of graphic design. This place is not only associated with the preservation of traditional arts but is also increasingly recognized as a center for creativity and digital innovation. The depth of Yogyakarta history, along with its long history of creative innovation, has produced a distinctive metropolitan character that often serves as a national reference point for artistic growth. This character does not appear in one moment. This character is formed as a result of the simultaneous evolution of social, cultural, economic, political and ideological factors. In this context, printmaking progressively established itself as a city-based artistic expression. Early figures such as Affandi Suromo and Abdul Salam helped shape the original image of Yogyakarta graphic arts, although the line between fine art and graphic practice is still flexible and interpretable.

It is impossible to separate the evolution of Yogyakarta graphic arts from the dynamics of the wider history of printing. Yogyakarta, a city that has long been the center of Indonesia artistic activities, has accepted and reacted to the paradigm shift in the printing industry, ranging from traditional to modern methods. In addition to inheriting traditional printing methods, Yogyakarta graphic designers actively challenge and debate the accepted limitations of the medium. Ultimately, this bargaining process creates Yogyakarta graphic art as a dynamic practice where creative impulses and historical origins coexist. Understanding how contemporary printing develops as a discipline, both technically and philosophically, is essential to understanding Yogyakarta graphic arts more thoroughly.

Most people consider modern printmaking to be a two dimensional visual art form that uses printing as its main material. Aside from being a technical process, methods including relief printing, intaglio printing, planography and screen printing help define the conceptual parameters of the work. Although this distinction is sometimes disputed, these techniques firmly place printmaking in the category of fine arts. Contemporary printmaking finds its significance in today creative discourse precisely because of this conflict, even when the emphasis on replication and process sometimes raises doubts about authorship and originality.

According to Zhang et al. (2022), some artists are too busy mastering technology, ignoring the basic purpose of printing art itself, and the incredible efficiency and repeatability of digital printing have even caused misunderstanding among many people. In the same context, Adams (2019) claims that the development of printmaking incorporating digital

technology has created new opportunities, transforming printmaking from simply reproducing images to creatively conveying complex concepts.

As noted by Zhang et al. and Adams, the conflict between technical progress and the fundamental principles of printing is more than just a theoretical argument. It is a lived reality that materialises in certain educational and cultural contexts. One such environment where these conflicts are being handled is Yogyakarta, with its deeply ingrained artistic legacy and increasingly vibrant creative scene. The institutions, communities and policies that collectively form the structural basis of creative creation define and manage the issues around authorship, originality and the growing bounds of printing. Within this framework, Yogyakarta graphic arts development must be viewed as the result of intentional and persistent efforts by a variety of stakeholders, from academic institutions to grassroots collectives and governmental organisations, rather than merely as an organic cultural phenomenon.

The growth of graphic art in Yogyakarta cannot be separated from the role of higher education institutions as catalysts and producers of graphic artists. The faculty of fine arts of ISI Yogyakarta has long played an important role in the development of Indonesian graphic arts and the teaching of graphic artists whose works circulate within the wider social sphere of the visual arts. Through formal education and creative practice, the school has helped create critical viewpoints that define modern visual culture, as well as technical proficiency. A complex network of groups and collectives focused on graphic design and visual arts supports Yogyakarta beyond the campus. These associations regularly organize workshops, seminars and exhibitions that serve as an informal learning environment for aspiring designers. The meetings encourage collaborative exchange of ideas and practices, ultimately strengthening the local graphic design ecosystem. Simultaneously, assistance from local governments and business sector actors remains essential. Art festivals, design contests and business incubation efforts for new designers are consistently organized. This collaborative effort increases public awareness of graphic design while providing opportunities for professional networking and employment in the creative industries.

Despite its long history, printmaking in Yogyakarta continues to face obstacles, especially in terms of public recognition, commercial penetration and unresolved ideological issues. These difficulties are not only of technical or commercial origin, but are also closely related to issues of creative value and cultural orientation. Despite these limitations, the evolution of visual and graphic arts culture in Yogyakarta shows a special character that

deserves to be seriously considered and admired in the long run. This scenario shows that the city remains a fertile ground for creativity and innovation. The mix of a vibrant arts community, strong educational institutions and cross-sector support has enabled graphic designers to interact deeply with local cultural references while responding to broader community concerns. As a result, the works created tend to deviate from the superficial aesthetic and towards a deeper and meaningful visual message. It is realistic to expect graphic design in Yogyakarta to evolve as technology advances and society needs change, although the direction of such growth is still open to interpretation.

2.1.3 Technology and Infrastructure in Graphic Design

Contemporary civilization is often described as one that operates in a contemporary environment, with an increasing level of complexity that shapes daily activities to be more practical, efficient and successful. The complexity is driven in part by ongoing scientific advances and rapidly evolving information and communication technologies. These technological innovations not only provide new tools, but also change the way information is created, transmitted and accessed on a global scale. Access to information is no longer limited by geographic boundaries, although the depth and quality of such access may vary. In this context, technology serves as a medium that helps people transmit messages more precisely, while raising concerns about the interpretation, control and reliability of information in an increasingly connected world.

The gradual advancement of technology has made it easier to retrieve information and changed the way people seek knowledge. Practices that once relied heavily on newspapers, printed books or television broadcasts have progressively shifted to internet-based sources. This shift has been aided by the increasing availability of digital devices such as personal computers, laptops and smartphones, as well as wider access to reliable internet connections, which have normalized online searching as a daily habit rather than just an occasional hobby.

Surya (2010: 244) observed that in this context, information technology provides ample opportunities for the growth of creativity and personal freedom. Learning procedures facilitated by digital technology tend to encourage the creation of original and valuable works that can be developed and utilized in a more meaningful way. At the same time, such progress not only expands the creative potential but also fundamentally changes the work routine of graphic designers. Designers can convey visual concepts with greater precision and flexibility thanks

to digital technology, while increasingly complex software supports the full design cycle, from initial conceptualization to final product implementation.

Graphic design can be seen as an artistic discipline as well as a technical procedure for communicating ideas through visual representation. Previously, when technical resources were limited, designers and artists relied primarily on manual means of expressing their ideas such as hand-drawing, drafts on paper or the creation of physical models. This technique requires a high degree of patience and material sensitivity and the result is often affected by practical limitations.

As digital technology advances, the work environment for graphic designers has evolved significantly. Contemporary designers are increasingly developing their ideas using computer-based software which provides greater accuracy, flexibility and speed in the design process. These tools not only replace old approaches but also open up new creative possibilities by enabling previously impossible experiments, revisions and visualizations. In this regard, technological advances have changed the way visual concepts are generated and transmitted in the graphic design profession (Delhi, 2022).

In general, the term technological revolution refers to the increasing dependence on computers and automated systems as essential tools for technological growth. These advances have had a significant impact on the field of visual communication design (DKV). This field was formerly known as graphic design and is strongly linked to the heritage of the applied arts. In its early stages, this process was known simply as design, a word popular during the industrial revolution in Europe around the turn of the 20th century.

In the period, graphic design activities were mostly carried out by artists and relied heavily on manual manufacturing techniques. As technology advanced in the early 20th century, new communication media emerged such as electronic devices and computer-based systems. The designers ended up incorporating this medium into their creative work. The growth of computer graphics technology, particularly its ability to handle images and video which marked a turning point in this history. This not only expands the technological possibilities for visual expression but also helps consolidate and professionalize graphic design as a distinct subject.

The move to digital technology in the visual communication design (DKV) sector is a long and gradual process. The replacement of analog and manual systems with digital technology has changed manufacturing procedures that can increase efficiency while

improving output quality. Tools that were originally based on analog mechanisms have been transformed into computer-based instruments such as digital cameras, video cameras, digital printers and various types of digital publication media. This transition reflects not only technological advances but also a greater rethinking of how creative work is conceptualized and implemented in modern design practices (Ambarwati, 2022). In this technological landscape, software is fundamental to the operation of modern digital technologies. Indonesian dictionary defines software as a collection of programs, processes and documents that are part of a system such as a computer and serve as the main hardware support components.

According to Santika, software is a collection of instructions written in a formal programming language and intended to be executed by a computer. According to this point of view, software is more than a technical instrument, it is an organized logic system that bridges the gap between human goals and machine performance. Santika also divides software into two categories such as application software and system software, emphasizing its diverse responsibilities in facilitating creative processes and technical infrastructure.

Along with the rapid pace of technological innovation, software has evolved into an essential component of today graphic design infrastructure. Designers can generate and enhance visual aspects with high precision using design software such as *Adobe Photoshop*, *Adobe Illustrator* and *Coreldraw* as well as 3D platforms such as *Blender* and *Autodesk*. This technology allows the construction of precise drawings, typography, color combinations and spatial structures, while providing an opportunity to experiment. The easily accessible tools expand the scope of creative possibilities, from complex image processing and typographic composition to vector-based drawing and visual effects integration. In this context, software serves not only as a technical aid but also as an active environment that influences how visual concepts are imagined and realized.

At the same time, the advent of cloud technology has resulted in a significant shift in how graphic design work is organized and handled. Cloud technology is a type of computer infrastructure that functions through an internet-based system instead of local hardware. Applications built on cloud platforms store data and resources on remote servers that can be accessed from any device. Compared to traditional on-site systems, this technology provides greater flexibility and scalability while lowering operational costs. Platforms such as *Adobe Creative Cloud*, *Google Drive* and *Dropbox* show how cloud-based services facilitate design workflows by enabling collaborative file storage, sharing and editing without regard to physical

location. This technique encourages smoother engagement and real-time response for designers working in teams or directly with customers, especially in projects that require constant modification.

With the widespread use of cloud technology, designers can now access project files and materials across multiple devices at any time and from any location. The system also allows for secure and efficient data storage, reducing the likelihood of losing important work due to device damage or unexpected technological disruptions. Simultaneously, better design software opens up a wider range of possibilities for them to explore visual concepts. Designers can create mockups, working prototypes and more realistic 3D simulations, which aid communication with customers and allow design results to be modified according to expectations.

In this technological context, graphic design is increasingly evolving from a job largely characterized by visual expression to a more technical and diverse activity. Contemporary designers are required to not only understand aesthetic concepts but also have a fundamental understanding of digital technologies, network systems and analytical thinking which enables data-driven design decision making. As technological innovation accelerates, the infrastructure that supports graphic design is increasingly intertwined and complicated. This condition makes graphic design a field characterized by constant change, with growth and experimentation being an integral part of its continuous evolution, rather than a one-time event.

2.1.4 Profile of the Informants

In the research conducted here, the research is aimed at informants to answer the question of how graphic designers in Yogyakarta utilise technological advances to create more creative, interactive, interesting and fast work in the creative industry. In this research, the informants that will be selected are professional graphic designers who are actively working in the creative industry of Yogyakarta. Before the author and researcher describe the answer to the question, the author would like to explain the personal profile of each informant to clarify the description and data that the author gets to provide an overview of how graphic designers in Yogyakarta utilize technological advances to create more creative, interactive, interesting and fast work in the creative industry. In this study, the selected informants are professional graphic designers who are actively working in the creative industry in Yogyakarta. Before the researcher presents the answers to the research questions, the researcher intends to describe the personal profiles of each informant to clarify the context and data obtained, which will help

provide a comprehensive understanding of how graphic designers in Yogyakarta utilize technological advancements to create more creative, interactive, engaging and efficient works in the creative industry. The informants in this study were selected using the snowball sampling method. Snowball sampling involves using the connections or recommendations of one informant to identify the next potential informants.

In addition to making interviews, previous research will be done on each application they have to use graphic design applications such as *Adobe Photoshop*, *Coreldraw*, *Canva* or other software. This opening question serves as a waypoint, asking the research to establish information comments in a professional perspective. Understand the extent to which the introduction of information with design tools understand the research to understand the perspective it reveals during the interview more closely, while still understanding the differences in practice, papers, and the level of understanding that can understand how graphic design is understood and articulated.

This research is based on in-depth interviews with six (6) people from Yogyakarta and domiciled. Each section will discuss in detail your unique education, work experience and area of specialization in graphic design. Therefore, this study aims to examine how technological advances are applied and applied in various places within the local creative sector.

Some informants work as freelance designers, while others are employed by creative companies that have more organized production procedures. These differences provide a clearer understanding of the everyday circumstances that shape the practice of graphic design in Yogyakarta, particularly the use of digital technology. These experiences reveal how technology affects work productivity, visual refinement and communicative quality of design results. The interview data was then reviewed to find recurring patterns that indicate a broader trend in the use of technology in modern graphic design practices in the digital age.

The following is a section that presents the data and profiles of the six informants:

NAMA	GENDER	AGE	WORK	ORIGIN /DOMICILE	TIME	APPLICATIONS USED
Tsaqif Ibrahim	Male	21	Freelance	Banten/ Yogyakarta	25/04/2025	Adobe Illustrator, Adobe Photoshop, Procreate, blender 3d, nomad studio, linearity curve
Aulia Anisa	Female	26	Freelance	Sleman, Yogyakarta	26/04/2025	Adobe Photoshop, Adobe Illustrator, Canva dll
Gagas Waskita Harimurti	Male	25	Freelance	Sleman, Yogyakarta	26/04/2025	Adobe Illustrator, Corel Draw, Canva
Renggatama Putra	Male	26	Employee	Gunungkidul, Yogyakarta	26/04/2025	CorelDraw, Adobe Photoshop, Canva, dan Figma
Fathoni Anwar	Male	27	Employee	Gunungkidul, Yogyakarta	27/04/2025	Adobe Photoshop, CorelDraw, Canva
Ahmad Fauzan	Male	23	Freelance	Kota Gede, Yogyakarta	03/05/2025	Coreldraw, Adobe Photoshop, Canva.

Table 2.1 Profil of the Informan

CHAPTER III

3.1 DATA FINDINGS AND DISCUSSION

This chapter presents research findings from a study entitled “Graphic Designer Experience in the Use of Digital Technology in the Creative Industries of Yogyakarta” The discussion is organized systematically to answer the research questions formulated in Chapter I, based on empirical data collected throughout the research process. Instead of just presenting data, this chapter provides an interpretive analysis to explain how user experience and the use of various digital applications affect the creative practices of graphic designers in Yogyakarta. This analysis is based on the perspective of the participants, so that it reflects the actual condition of the local creative industries and produces deep insights and contextually relevant to the phenomena studied. Thus, this chapter is directed to answer the main research questions regarding how graphic designers in Yogyakarta experience the use of technological advances in producing works that are more creative, interactive, visually attractive and efficient in the creative industries.

This study was conducted through direct observation and face-to-face contact with informants who are known as reliable graphic design practitioners in Yogyakarta. To answer the research topic in this case, a structured interview is used as the main data collection method, allowing a methodical examination of professional experience and design approaches. The study involved six informants, namely four independent graphic designers with various specialties, as well as two designers from a creative agency and an educational institution. These diverse professional backgrounds provide a deeper insight into the local creative ecosystem. The results of these interactions, as well as their analytical interpretation, are fully described in Chapter III.

A qualitative approach was used in this study because it provides the flexibility and depth needed to investigate complex phenomena through the participants daily experiences. This methodological decision is based on the idea that numerical measurements alone cannot adequately represent the creative process and the interaction of technologies, so they require a careful interpretation of experience and meaning. This chapter presents conclusions based on data collected through direct observation and in-depth interviews with six informants who have extensive professional experience. The conversation is structured on the basis of many main ideas, which ultimately address the subject of research. These topics are evaluated through the

lens of the user experience component, which serves as the main analytical basis for interpreting the data.

This approach is used to guarantee that the study goes beyond mere technological tools and operational tactics. User experience is emphasized as an important factor that influences how graphic designers interact and use technology to be more creative. From this approach, technology is understood and negotiated through everyday behavior, rather than as a neutral instrument. The analytical framework is built on four main components of the user experience. Usability refers to the ease of use and perceived efficiency of the design process. Benefits focus on functional value and its contribution to productivity. Emotional impact measures emotional reactions such as satisfaction, uncertainty or motivation that develop during engagement. Meaningfulness refers to contextual relevance, which includes how technology complements professional identity and artistic goals.

3.1.1 Usability: Ease of Use, Interoperability and Workflow Efficiency

The transition of the graphic design business from analog to digital environments has reshaped not only the tools used but also the core concept of usability in design practice. Historically, design work was based on cut and paste procedures, manual typesetting and traditional printing processes. This technology requires a high level of technical expertise and often requires a long production cycle. With the advent of the digital age, this convenient pattern began to shift. The creative process was reorganized, making the production workflow more adaptable and responsive. Continuous innovation in information and communication technology continues to impact the sector by presenting increasingly complex software and digital tools that enable creative exploration and efficient visual output (Starkey, 2019).

This digital transition has transformed design practices in ways that go beyond the daily routine. This has created opportunities for cross-border collaboration and increased access to sophisticated creative output for designers in a variety of scenarios. As repetitive procedures become more automated, contemporary tools allow designers to perform difficult visual work more efficiently. Simultaneously, the quality of visual results increases as artificial intelligence cloud-based systems and real-time collaboration platforms become increasingly integrated.

According to Puskomedia Indonesia (2024), technological advances have had an impact on several phases of the graphic design process. *Adobe Photoshop* and *Adobe Illustrator* now have additional features that allow the production of smoother visual effects and more realistic compositions. Cloud technology facilitates this change by allowing designers to access project

files from multiple places and interact with colleagues without being limited by physical distance.

The shift from analog to digital practice involves a number of practical changes that require thorough empirical evaluation. This section focuses on usability as encountered in everyday design work, with emphasis on simplicity of use, interoperability and workflow efficiency. Insights are drawn from in-depth conversations with six practitioners who are actively involved in the Yogyakarta graphic design community. Throughout this interaction, usability is always mentioned as a determining element of how designers organize their work, make technical decisions and assess the quality of their final product. The following discussion is structured around three fundamental usability characteristics within the framework of user experience namely ease of use, interoperability and workflow efficiency, in order to convey empirical findings in a logical and systematic manner.

a. Ease of Use (usability)

According to interview data, ease of use has a significant impact on graphic designers experience with application-based technologies. Many informants view modern software as more intuitive with user-friendly interfaces and flexible capabilities that facilitate making difficult creative decisions. The incorporation of advanced capabilities including artificial intelligence, is often considered beneficial but its value seems to be determined by how well these characteristics fit into existing work patterns. Tsaqif Ibrahim reflections demonstrate this idea, as he states that the incorporation of many applications based on certain stages in the process can minimize cognitive load and make complex design work easier to perform. This insight shows that ease of use is not characterized by a single tool in isolation, but rather by how well many applications can be integrated in the larger design process.

“Untuk mendesain aku biasa menggunakan procreate untuk membuat sketsa dulu, kemudian menggunakan Adobe Illustrator, Adobe Photoshop atau Linearity Curve untuk membuat desain” (wawancara Tsaqif Ibrahim, April 2025).

“To design I used to use procreate to sketch first, then use Adobe Illustrator, Adobe Photoshop or Linearity Curve to create the design” (interview Tsaqif Ibrahim, April 2025).

These approaches involve a strong awareness of techniques and strategies in an effort to achieve maximum goals. Procreate is used in the early stages to produce fast and intuitive sketching products, such as *Adobe Illustrator, Adobe Photoshop* and *Linearity Curve* developed

for later phases that produce higher visual accuracy and engineering control. This workflow involves the concept of unity of tasks and levels of difficulty, which is looking for ways to create the capabilities of a particular tool with the unity of the functions of each stage of the work. When the functions of the developed application are effectively utilized, the whole process becomes more cohesive, efficiency increases and design quality can be developed without harming creative freedom.

This statement shows that the use of multiple applications in one workflow is not just a technical choice, but rather a structured strategy in the creative process. The division of stages, from the initial sketch to the final execution, reflects the designers ability to adapt the functionality of each tool to the specific needs of each design phase. This reinforces the argument that integrating multiple applications not only improves work efficiency but also allows for more flexible exploration of ideas without sacrificing visual rigor. Thus, this practice demonstrates the professionals awareness of optimizing technology as part of a creative strategy.

The informant also states that the adoption of new features such as artificial intelligence will result in additional efficiency gains, but their use must rely on careful and selective implementation.

“Menurutku dengan ngegunain fitur yang ada sefleksibel mungkin dan memanfaatkan teknologi terkini seperti AI biar mempercepat proses desain, misalnya dengan menggunakan alat generatif untuk menghasilkan ide awal terlebih dahulu atau mengotomatiskan tugas-tugas berulang” (wawancara Tsaqif Ibrahim, April 2025).

“I think by making use of existing features as flexible as possible and utilizing the latest technology such as artificial intelligence to speed up the design process, for example by using generative tools to generate initial ideas first or automate repetitive tasks” (interview Tsaqif Ibrahim, April 2025).

This statement is in line with research findings showing that the use of digital technologies, in particular artificial intelligence, acts as an accelerator in the creative process of designers. In terms of user experience, this relates to the usability dimension, where technology not only simplifies work but also increases efficiency in solving design tasks. The use of artificial intelligence as a generative tool for the exploration of initial ideas reflects the shift in the role of technology from a mere means of production to a partner in the creative process. Furthermore, the automation of repetitive tasks allows designers to focus more on

conceptual and exploratory aspects, thereby increasing the quality and depth of their work. Thus, the practices shared by the speakers reinforce that integrating artificial intelligence into the design workflow is not only about speed but also about optimizing the entire creative process.

Ahmad Fauzan voiced a similar view, he stressed that artificial intelligence has become an important component in modern graphic design practice. According to him, artificial intelligence is more than just an additional feature, it is a practical resource that helps designers manage difficult work, speed up routine operations and refine visual results. At the same time, he emphasized that the value of such technologies lies in how they are integrated into existing processes, since the advantages are most noticeable when technological aids complement rather than even replace them.

“Menurutku pengaruh teknologi AI ini cukup krusial ya dalam pekerjaan desain grafis. Sebagai contoh mempercepat proses kerja sama ngebantu buat pengembangan ide yang macet, dll” (wawancara Ahmad Fauzan, May 2025).

“I think the influence of artificial intelligence technology is quite crucial in graphic design work. For example, accelerating the process of cooperation helps to develop ideas that are stuck, etc” (interview Ahmad Fauzan, May 2025).

According to Ahmad Fauzan, ease of use cannot be judged solely on the clarity of the interface or operational simplicity. It also depends on how well the technology supports and encourages creative ideas. In his experience, artificial intelligence often serves as a catalyst for ideas, helping designers overcome periods of creative stagnation while accelerating the completion of difficult work. This view is consistent with cognitive load theory, which states that well-designed digital tools can reduce mental strain while directing attention to conceptual growth and visual exploration. The end result is a more effective use of time and a noticeable improvement in the quality of design, while maintaining the individuality of the work.

This statement is in line with research findings showing that artificial intelligence technology plays an important role in improving the efficiency and smoothness of the creative process of designers. Within the framework of user experience, this relates to the usability dimension, where artificial intelligence helps speed up workflows while overcoming creative barriers that often arise in design practice. Furthermore, the use of artificial intelligence as an exploration tool also shows that technology not only serves as technical support but also contributes to expanding the possibilities of visual ideas and alternatives. Thus, the view of the

respondents reinforces that artificial intelligence plays an important role in supporting productivity and creative dynamics in graphic design.

Renggatama Putra further emphasized that artificial intelligence is very useful especially at the stage of photo manipulation.

“Menurut saya sangat berpengaruh, terutama AI yang membantu manipulasi foto, sangat mempercepat proses membuat desain grafis” (wawancara Renggatama Putra, April 2025).

“I think it is very influential, especially artificial intelligence that helps with photo manipulation, greatly speeding up the process of making graphic design” (interview Renggatama Putra, April 2025).

Renggatama Putra point of view emphasizes the increasingly widespread importance of artificial intelligence in automating technical processes that previously required significant time and manual precision, especially in image modification work. These processes are significantly shortened by automation. However, the resulting visual quality remains constant, since the algorithmic approach is used equally at each stage of production. Ease of use wise, the invention improves productivity by allowing designers to get consistent results with less effort. The practical impact was a change in creative focus, with technical execution becoming less important and more emphasis being placed on conceptual thinking and narrative development in design work.

This statement is supported by research findings showing that the use of artificial intelligence in visual manipulation directly contributes to an increase in the efficiency of designers work, especially in technical aspects that were previously time consuming and required high precision. In terms of user experience, it deals with the usability dimension, where technology enables faster processes without compromising the quality of the results. Furthermore, the automation provided by artificial intelligence is also driving a shift in the role of designers, from previously focusing on technical execution to focusing more on developing visual ideas and concepts. Thus, the views of the respondents reflect that artificial intelligence not only simplifies the work but also changes the creative orientation in the practice of graphic design.

In addition, ease of use is also associated with the ability of designers to choose the application that best suits a particular type of work. For example, Fathoni Anwar uses different applications for vector design and photo editing.

“Untuk desain vektor, aku biasanya pakai software Coreldraw, lalu untuk desain gambar berbasis pixel atau gambar, aku biasanya memakai Photoshop sama Canva” (wawancara Fathoni Anwar, April 2025).

“For vector design, I usually use Coreldraw software, then for pixel or image-based image design, I usually use Photoshop and Canva” (interview Fathoni Anwar, April 2025).

Fathoni Anwar opinion illustrates a deliberate approach in application specialization that is closely related to the shape and desired outcome of the design effort. The selection of software is based on the individual demands of each job, which seems to eliminate technical errors while allowing each tool to function to its full potential. This method is consistent with the concept of usability, which emphasizes the conformity between the functionality of the application and the actual design goals. The combined use of *Coreldraw*, *Photoshop* and *Canva* shows that cross-platform interoperability can facilitate a smoother creative process, as long as designers are aware of the unique strengths and limitations of each tool.

This statement is in line with research findings showing that the selection of different tools based on the type of design output reflects an adaptive and efficient work strategy. Within the framework of user experience, this relates to the usability dimension where the alignment between application functions and design needs enables more optimal work processes. Further, the use of multiple software programs simultaneously also demonstrates the designers mature technical understanding of managing cross platform workflows. Thus, the practice shared by the speakers reinforces that the effectiveness of a design is not determined only by a single tool, but by the ability of the designer to make use of various tools according to the characteristics of the task at hand.

Meanwhile, Gagas Waskita Harimurti goes one step further by leveraging artificial intelligence to analyze audience data and generate appropriate design recommendations.

“Menurutku teknologi AI itu sendiri telah memberikan dampak signifikan dalam pekerjaanku, kayak AI bias ngebantu dalam analisis data sama memberikan ngerekomendasiin desain yang lebih sesuai dengan target audiens. Ini sih yang memungkinkanku untuk membuat

desain yang lebih relevan dan menarik, serta menghemat waktu dalam proses pengembangannya” (wawancara Gagas Waskita Harimurti, April 2025).

“I think artificial intelligence technology itself has had a significant impact on my work, like artificial intelligence can help in data analysis while providing design recommendations that are more in line with the target audience. This is what allows me to create designs that are more relevant and interesting, and save time in the development process” (interview Gagas Waskita Harimurti, April 2025).

Comments Gagas Waskita Harimurti extends our concept of usability to an analytical dimension in which artificial intelligence acts beyond visual execution and serves as a kind of decision-making aid. Data-driven study of audience characteristics improves design choices, increases message relevance and reduces the risk of repeated changes. From a communication design perspective, this technique combines technical skills with strategic thinking. In this sense, usability refers to the ability of technology to improve the overall effectiveness and clarity of visual communication, not just the simplicity of the interface.

This statement is supported by research findings showing that the use of artificial intelligence is not limited to visual production but also plays a role in supporting data-driven decision making in the design process. Within the framework of user experience, it deals with the usability dimension, where technology can increase the relevance of design results to the needs of the audience. Furthermore, this data-driven approach aligns with the visual communication perspective, which emphasizes the importance of message alignment with the characteristics of the target audience. Thus, the use of artificial intelligence as an analysis and recommendation tool strengthens the effectiveness of the design, both in terms of communication and the efficiency of the development process.

Based on the responses received from respondents, it can be concluded that ease of use in graphic design includes not only technical aspects such as intuitive navigation and user-friendly application interface, but also the ability of technology to automate processes, speed up workflow and provide creative support through artificial intelligence. The integration of various applications into complementary workflows is emerging as an important aspect in achieving maximum usability for graphic artists.

b. Interoperability

In graphic design practice, interoperability refers to the ability of different software systems to communicate data and work together in a single production suite. It is not just the technological aspects, but also the structural conditions that influence how a creative work develops from the basic concept to the finished product. Based on interviews, designers in Yogyakarta rarely use one platform. Instead, they create a tiered workflow where each program is allocated specific work according to different project stages.

Tsaqif Ibrahim reveals how he deliberately blends many programs to increase the precision and visual depth of his work. Initial drawings can be created in one environment, revised in another and then finalized using software designed for rendering or comprehensive layout management. Such integration demonstrates a realistic understanding that no single instrument can be completely sufficient. In this situation, quality improvement is driven by strategic platform cooperation rather than dependence on a single dominating application.

“Untuk mendesain aku biasa menggunakan procreate untuk membuat sketsa dulu, kemudian menggunakan Adobe Illustrator, Adobe Photoshop atau Linearity Curve untuk membuat desain” (wawancara Tsaqif Ibrahim, April 2025).

“To design I used to use procreate to sketch first, then use Adobe Illustrator, Adobe Photoshop or Linearity Curve to make the design” (interview Tsaqif Ibrahim, April 2025).

This statement is supported by research findings showing that the use of various applications at various stages reflects a structured and adaptive workflow strategy. Within the framework of user experience, this relates to the usability dimension, where each tool is used according to its specific function to improve the efficiency and quality of design results. Furthermore, the division of the process from the sketching stage to the finalization stage also shows the optimization of the role of technology in supporting the exploration of ideas while maintaining visual precision. Thus, the practice presented by the speakers confirms that the integration of various applications not only streamlines the work process but also strengthens the overall quality of the design result.

A Gagas Waskita Harimurti followed a similar technique, emphasizing the significance of defining each applications job.

“Menurutku sih dengan nentuin peran dan tujuan dari masing masing aplikasi itu, lalu menggabungkan sesuai kebutuhannya gitu sih” (wawancara Gagas Waskita Harimurti, April 2025).

“I think it’s with determining the role and purpose of each application, then combine according to their needs” (interview Gagas Waskita Harimurti, April 2025).

This statement is supported by research findings showing that understanding the specific functions of each application is part of a user experience-based work strategy. In the framework of user experience it deals with the usability dimension, where the alignment between the intended use and the features of the application allows the design process to run more efficiently and purposefully. Furthermore, the ability to combine different tools as needed also reflects a high level of technological literacy, allowing designers not to rely on a single platform, but to build flexible and optimal workflows. Thus, this practice shows that the effectiveness of design is strongly influenced by the ability of designers to strategically manage and integrate technological functions.

The insights of Tsaqif Ibrahim and Gagas Waskita Harimurti reinforce the view that interoperability is an important component in modern graphic design practice. Rather than considering software as a replaceable tool, the two designers outlined an organized process in which each program was assigned a specific role. Tsaqif Ibrahim for example, uses *Procreate* at the conceptual stage because its responsive interface allows for quick sketch development and flow-line exploration. Once the visual approach is defined, it uses *Adobe Illustrator*, *Adobe Photoshop* or *Linearity Curve* to polish the vector structure, modify color gradations and ensure technical perfection for the final production.

Although interoperability provides creative freedom, it also poses technological constraints. Some respondents voiced concerns regarding the difficulty of file format compatibility, which might affect workflow efficiency, as mentioned by Gagas Waskita Harimurti.

“Tantangannya menurutku adalah komabilitas file antar aplikasi dan performa software dan hardware sih. Biasanya ngatasinya itu dengan menyamakan ekstensi file yang diperlukan untuk performa hardware dan software. Aku biasa mengatasinya itu dengan menggunakan hardware dan software yang lebih bagus dan asli dengan cara menyewa” (wawancara Gagas Waskita Harimurti, April 2025).

“The challenge I think is file compatibility between applications and software and hardware performance anyway. Usually overcome it by equating file extensions required for hardware and software performance. I used to overcome it by using better and original hardware and software by renting” (interview Gagas Waskita Harimurti, April 2025).

Gagas Waskita Harimurti also emphasized that interoperability does not always run smoothly. Issues such as file format compatibility between programs, as well as hardware and software performance constraints, can all hinder workflow efficiency. Attempts to harmonize file extensions and the use of high-quality licensed equipment through rental services demonstrate a realistic understanding of the need to maintain a smooth work process. These problems show that, although technology allows cross-platform interaction, the success of interoperability still depends on infrastructure readiness and format compatibility.

The statement is reinforced by research findings showing that technical barriers such as file compatibility and device limitations are becoming one of the real challenges in the utilization of digital technology by designers. In terms of user experience this is related to the usability dimension, where the smooth use of technology is greatly influenced by system readiness and format compatibility between applications. Efforts made by the resource person, such as equalizing file extensions and using more capable devices, reflect adaptive strategies to maintain workflow efficiency. Thus, these findings confirm that the success of technology integration depends not only on the capabilities of the application, but also on the support of the infrastructure used by the designer.

Thus, interoperability plays an important role in usability because it allows designers to take advantage of the diverse characteristics of the platform, but its efficacy depends on the smooth exchange of data between the program and the hardware used.

c. Workflow Efficiency

Workflow efficiency is closely related to the ability of designers to methodically organize work stages, make maximum use of available resources and cut production time without compromising output quality. Respondents feel that implementing a well-structured workflow approach is critical to increasing productivity. Ahmad Fauzan underlined the need for clear stages of work and efficient use of digital asset libraries.

“Biasanya aku ngegunain 2 strategi untuk mempertahankan kualitas desain saya, yang pertama adalah “workflow” membuat tahapan kerja yang teratur, mulai dari riset/konsep, sketsa, revisi, hingga finalisasi. Kemudian yang kedua ada “asset library” membuat dan menyimpan seperti ikon atau elemen desain yang biasa saya digunakan” (wawancara Ahmad Fauzan, May 2025).

“Usually I use 2 strategies to maintain the quality of my design, the first is “workflow” to make regular stages of work, ranging from research/concept, sketch, revision, to finalization. Then the second one is “asset library” to creating and storing like icons or design elements that I usually use”(interview Ahmad Fauzan, May 2025).

Ahmad Fauzan technique demonstrates an understanding of the need for systematic task planning in improving efficiency while maintaining output quality. Workflows that begin with research and end with establishing a defined framework for each stage of the design process, reduce the likelihood of errors and accelerate decision-making. The creation of an asset library as a repository for ready-made design components is also a long-term commitment, as it allows continuous reuse of visual assets across multiple projects. This method is consistent with the concept of workflow optimization which states that efficiency is achieved through standardization of processes and effective use of existing resources.

This statement is supported by research findings showing that the implementation of structured workflows and asset library management is a form of efficiency strategy in digital design practice. In terms of user experience this relates to the usability dimension, where technology is utilized to support quality consistency while speeding up work processes. Furthermore, the use of asset libraries also reflects the optimization of resources, allowing designers to reduce repetitive work and focus more on developing ideas. Thus, this practice confirms that the quality of design is determined not only by creativity but also by the ability of designers to systematically manage processes and resources.

Meanwhile, Tsaqif Ibrahim discussed the ways he used to speed up the design process.

“Strategi yang biasa saya lakuin itu biasanya dengan membuat alternatif meliputi penggunaan desain template yang sudah saya buat untuk proyek yang berulang, memanfaatkan alat kolaborasi untuk komunikasi yang lebih cepat, dan menetapkan batas waktu yang realistis untuk setiap tahap desain. Saya pikir dengan perencanaan yang baik, saya dapat meningkatkan kecepatan tanpa mengorbankan kualitas” (wawancara Tsaqif Ibrahim, April 2025).

“My usual strategies for creating alternatives include using design templates I have already created for recurring projects, utilizing collaboration tools for faster communication, and setting realistic time limits for each design stage. I think with good planning, I can increase the speed without sacrificing quality” (interview Tsaqif Ibrahim, April 2025).

Tsaqif Ibrahim method emphasizes the use of technology and excellent time management to accelerate the design process. The use of templates for repetitive projects reduces the need to start from scratch, while the use of collaborative technologies accelerates team communication and collaboration. Setting a realistic schedule guarantees that the acceleration of the process does not degrade quality. This method is in accordance with the understanding of workflow in creative business which states that eliminating activities that do not add value can increase productivity while reducing time waste.

This statement is supported by research findings showing that the use of templates, collaboration tools and structured time management are part of workflow optimization strategies in digital graphic design. In terms of user experience this relates to the usability dimension, where technology not only speeds up work processes but also maintains a consistent quality of results. Furthermore, the use of templates and digital collaboration also reflects efficiency in reducing repetitive work and improving team coordination. Thus, the practice presented by the interview respondents confirms that the acceleration of the design process can be achieved through systematic planning without compromising the quality of the results.

Fathoni Anwar also uses a program with ready-made templates to save time.

“Untuk meningkatkan kecepatan kerja, biasanya sih aku menggunakan aplikasi Canva, tentu saja ya karena banyak template yang disediakan, sama sebelum goal dengan client, biasanya aku nanyain terlebih dahulu apakah sesuai dengan yang diinginkan client atau masih perlu adanya revisi” (wawancara Fathoni Anwar, April 2025).

“To increase the speed of work, I usually use the Canva application, of course because there are many templates provided, the same before the goal with the client, I usually ask first whether it is in accordance with what the client wants or still needs revision” (interview Fathoni Anwar, April 2025).

Based on the statement, Fathoni Anwar prioritizes efficiency through the use of Canva which provides a variety of ready-made templates to speed up the creative process. This strategy is especially useful for jobs that demand quick completion without sacrificing visual quality. In addition, its approach of checking designs with customers prior to finalization acts as an important form of quality control. This method reduces the possibility of major adjustments at the final stage and guarantees that the design is more in line with the clients expectations, while establishing a transparent working relationship.

This statement is supported by research findings showing that the use of templates in design applications such as Canva is a form of workflow optimization that focuses on efficiency without sacrificing visual quality. In terms of user experience this relates to the usability dimension, where ease of Use and availability of ready-to-use features enable a faster design process. In addition, the practice of confirmation with the client before finalization also reflects an effective communication approach in the design, thereby reducing the risk of repeated revisions. Thus, this strategy not only speeds up the work process but also improves the alignment of the design results with the needs and expectations of the client.

Based on the findings of interviews and subsequent research, it can be concluded that the usability in the practice of graphic design among Yogyakarta designers is represented by three important factors that are interconnected. First, ease of use is achieved by choosing the appropriate application for each step of the workflow and applying contemporary technologies such as artificial intelligence, to remove technical barriers, accelerate the creative process and help generate new ideas. Second, interoperability is an important aspect of improving results, as designers leverage the benefits of different software programs in an integrated workflow, despite constraints such as file compatibility and hardware restrictions that require adaptive techniques. Thirdly, workflow efficiency is achieved through methodical planning, utilization of ready-made digital assets, implementation of templates as well as effective client communication and validation processes.

Overall, good usability in this environment depends not only on easy navigation or software interface design, but also on the designers ability to manage technology, create strategic processes and foresee technical challenges. A productive, high-quality and sustainable design process is built on careful planning, adoption of appropriate technology and flexibility to field circumstances.

3.1.2 Usefulness: Functional Usefulness of Design Tools, Artificial Intelligence and Analytics as Productivity Enablers

Graphic design is currently the only field of visual art that we encounter on the street or in public spaces. Graphic design is often presented in the form of advertisements displayed on billboards, banners, roadside signs and other media in that all information is packaged in a visually attractive and communicative manner. These examples show how graphic design is very related and familiar in our daily lives. Other visual arts such as painting, sculpture and crafts, are less accessible than graphic design.

In the early stages of graphic design as an art form, a designers competence is evidenced through originality in conceptualization and drawing ability. Drawing talent is considered a prerequisite for becoming a graphic designer. Although techniques and tools to facilitate the drawing process have evolved, the ability to apply color, create illustrations, design lettering and incorporate these elements into effective layouts and compositions remains an important factor in determining the quality of graphic design work (Migotuwio, 2020). This reinforces the notion that the creative process in graphic design is a dynamic stage in which a designer methodically conveys ideas and concepts.

This process is driven by various contextual elements such as political and economic realities, the demands of the target audience as well as the social and cultural environment in which the designer works. These criteria are the foundation for developing and implementing relevant and meaningful graphic design work. Before the internet, reference sources were limited, thus testing a graphic designers ability to create original, beautiful, communicative and successful works. As a result, we now have a variety of graphic design works that vary in each country and each period presents different characteristics. Styles that stood out in the past are often used as references by today graphic designers.

With the advancement of today digital technology, in particular the introduction of modern design software and artificial intelligence, the role of graphic designers no longer depends only on manual drawing skills, but also on the ability to use functional features, artificial intelligence support and data-driven analysis to improve the productivity and relevance of their work. As a result, the next section covers three elements of usefulness in graphic design such as the functional usability of design tools, the role of artificial intelligence in driving creativity, efficiency and the use of analytics to create focused and impactful designs.

Based on the interview findings, usefulness in graphic design is assessed not only from how successfully a tool or technology helps design creation but also from how that technology provides value to productivity and job relevance. According to respondents, the use of functional software features, artificial intelligence and data-driven analytics helps speed up workflows, reduce technical complexity and improve overall output quality.

a. Functional Usefulness of Design Tools

Functional usefulness in graphic design refers to how much software, features and assistive technologies help designers perform their work efficiently and goals of the project. In practice, designers choose programs not only on the basis of their popularity, but also the

functionality that they provide in relation to the stages of the workflow they perform. Understanding the strengths and limitations of any software program is critical to maintaining a smooth design process and achieving optimal results. Aulia Anisa underlined the need for a series of workflows that strategically harness the power of each application.

“Aku biasanya menggunakan aplikasi pertama untuk mencari bahan, lalu mengedit di aplikasi lainnya” (wawancara Anisa Aulia, April 2025).

“I usually use the first application to search for materials, then edit in other applications” (interview Anisa Aulia, April 2025).

This workflow pattern shows a clear division of tasks, with certain programs dedicated to material collection and others used for the final production stage which directly improves the efficiency and efficacy of the design process.

Research shows that segmenting application functionality by work phase is an adaptive approach to managing the design process, reinforcing this claim. This is related to the usefulness dimension of the user experience framework, where each tool is used according to its respective function to increase productivity and clarity of work processes. In addition, separating the production and material procurement phases helps designers to stay focused and reduce errors. This approach suggests that the organization of a systematic workflow by designers, in addition to the technologies they use, determines the effectiveness of their work.

Renggatama Putra also provides examples to show the importance of functional usability in software selection.

“Biasanya aku gunain Coreldraw jika membutuhkan desain vektor yang fleksibel sama pakai Canva jika ingin ngebuat desain pixel atau foto yang perlu di edit dan membutuhkan fitur AI” (wawancara Renggatama Putra, April 2025).

“Usually I use Coreldraw if I need a flexible vector design and use Canva if I want to make pixel designs or photos that need to be edited and need artificial intelligence features” (interview Renggatama Putra, April 2025).

This statement emphasizes the need to understand the capabilities of each application, which allows activities to be completed more effectively and in accordance with the required technical standards.

Research showing that selecting applications based on design output characteristics is a component of a work strategy that focuses on efficiency and quality supports this claim. This relates to the usefulness dimension of the User Experience Framework where more efficient workflows are made possible by the alignment of application features with technical design requirements. In addition, the use of artificial intelligence elements in programs such as Canva illustrates how technology is used to facilitate the acceleration of processes while increasing the flexibility of visual processing. As a result, this approach demonstrates how important it is to understand the capabilities of each tool to create successful, standards-compliant designs.

Meanwhile, Ahmad Fauzan views each software has different qualities as added value in the creative process.

“Tentunya dari setiap aplikasi desain memiliki karakter yang berbeda beda, seperti Coreldraw yang memiliki keunggulan pada vektor, dan Photoshop pada bitmap. Dua kondisi ini biasaku gunain sesuai kebutuhan” (wawancara Ahmad Fauzan, May 2025).

“Of course, every design application has a different character, such as Coreldraw which has advantages in vectors and Photoshop in bitmaps. These two conditions I usually use as needed” (interview Ahmad Fauzan, May 2025).

This method not only maximizes the technical features of the program, but also avoids the restrictions on the results that are possible when relying entirely on one software.

Research results showing that understanding the features of each application is a component of an adaptive approach in the use of design technology support this claim. This relates to the usefulness dimension of the user experience framework, where more effective work processes and better results are possible when the type of software and design requirements are met. In addition, the designers efforts to go beyond the technological limitations of a single platform while maintaining flexibility and output quality are reflected in the selective use of many applications. This approach suggests that the ability of the designer to modify the tool in accordance with the specifics of the work being done is an important component of the effectiveness of the design.

Based on these three perspective, we can conclude that functional usefulness in graphic design is determined by three main factors that are the clarity of the distribution of roles between applications in the workflow, the use of the specific strengths of each software according to the nature of its tasks and the adaptability of the designer in choosing the most

appropriate tools to meet the project objectives and technical requirements. A well-planned and targeted strategy not only increases productivity but also ensures the quality of the final design work.

b. The Role of Artificial Intelligence in Supporting Creativity and Efficiency

Graphic designers see artificial intelligence as an element that can speed up the creative process while sparking new ideas. Artificial intelligence is used not only to carry out technical tasks, but also to help designers find creative ideas faster. Fathoni Anwar highlighted the importance of artificial intelligence and generative technologies in accelerating output and improving concept development.

“Untuk saat ini aku biasanya memanfaatkan teknologi terkini, seperti AI dan alat generatif, untuk mempercepat proses desain dan mendapatkan ide-ide baru” (wawancara Fathoni Anwar, April 2025).

“For now I usually utilize the latest technology, such as AI and generative tools, to speed up the design process and get new ideas” (interview Fathoni Anwar, April 2025).

The application of artificial intelligence in this context highlights its capacity to decrease repetitive manual activities, freeing designers to devote more time to concept creation.

Research showing that the use of generative tools and artificial intelligence accelerates designers creative processes reinforces this claim. This relates to the usefulness dimension of the user experience paradigm, where technology not only speeds up the completion of work but also creates more opportunities for the exploration of ideas. Artificial intelligence also allows designers to focus more on concept creation and visual quality by automating monotonous tasks. This approach suggests that artificial intelligence technology enhances creative dynamics in graphic design while increasing efficiency.

Renggatama Putra has a similar viewpoint, believing that artificial intelligence is a highly important tool for visual modification.

“Menurutku sih sangat berpengaruh ya, terutama AI itu bisa ngebantu buat manipulasi foto, dan sangat mempercepat proses membuat desain grafis, tapi tetap penggunaanya harus bijak” (wawancara Renggatama Purta, April 2025).

“I think it’s very influential, especially artificial intelligence that can help make photo manipulation and greatly speed up the process of making graphic design, but still its use must be wise” (interview Renggatama Purta, April 2025).

This phrase implies that artificial intelligence also serves as a technological accelerator, reducing the time required to complete previously time-consuming tasks.

Research shows that the application of artificial intelligence in visual manipulation greatly increases the productivity of designers work processes, especially in technical activities that previously required high time and precision. This relates to the usefulness dimension of the user experience framework, where technology can accelerate processes without compromising the quality of results. However, the focus on wise use is also consistent with research findings that show the need for designers to maintain control over artificial intelligence in order to maintain the value of creativity and uniqueness in the work. As a result, this approach suggests that artificial intelligence can be used as a tool to speed up procedures, but it should still be used with caution.

In addition to the benefits recognized by many designers, other respondents such as Anisa Aulia, emphasized the problems and debates related to the use of artificial intelligence.

“Sebenarnya keberadaan AI menurutku merupakan sebuah kontroversi, namun kalau dimanfaatkan ini bisa menjadi sumber daya yang mumpuni, namun keberadaannya sendiri menurutku masih melanggar copyright dari artist” (wawancara Anisa Aulia, April 2025).

“Actually, the existence of artificial intelligence in my opinion is a controversy, but if used this can be a qualified resource, but its existence itself still violates the copyright of the artist” (interview Anisa Aulia, April 2025).

This point of view emphasizes that, although artificial intelligence has great potential as a driver of innovation and efficiency, its application must rest on ethical and legal issues, especially in terms of copyright protection.

The results of the study support this claim by showing that although artificial intelligence makes the design process easier and more efficient, its use also raises questions about the originality of the work and ethical considerations. This relates to the usefulness dimension of the user experience framework, where technology is evaluated not only on its ability to speed up tasks but also on the extent to which its use offers responsible advantages in design practice. Furthermore, the uncontrolled use of artificial intelligence has the ability to

disguise the possession of this meaning because the design work embodies the cultural values and identity of the creator from the point of view of semiotic and visual communication. In order for artificial intelligence to continue to be useful without harming other creators, the perspective of the resource person emphasizes that its use must be balanced with ethical awareness.

Based on the responses of the respondents, it can be concluded that artificial intelligence has emerged as an important component in the creative process of modern graphic design. Artificial intelligence has the potential to accelerate the technical phase, minimize repetitive manual work and drive the production of new ideas through powerful generative features and sophisticated visual manipulation. According to Fathoni Anwar and Renggatama Putra, the added value of artificial intelligence comes from its potential to improve time efficiency and the quality of the final result, thus allowing designers to focus more on in-depth creative concept research.

However, Anisa Aulia critical perspective provides an important point of reflection on this issue. Although artificial intelligence is considered a valuable resource, its existence raises ethical concerns regarding copyright infringement and the originality of creative creations. This suggests that the use of artificial intelligence requires an appropriate legislative framework and a strong ethical awareness.

Therefore, artificial intelligence in graphic design is ideally positioned as a strategic collaborator, accelerating workflows and expanding creative possibilities while remaining responsible. The combination of effective use of technology and adherence to professional ethical norms is critical to ensuring that artificial intelligence truly serves as a tool to increase productivity while protecting the integrity of design work.

c. Analytics as a Creative Support Tools

Analytics technology is increasingly being used as a strategic tool, rather than a complementary tool, in modern graphic design. Its significance stems from its ability to educate creative judgment through careful analysis of design trends, audience behavior and user interaction data. When the data is properly understood, the designers will be better able to create visual concepts that fit well-defined target groups and respond to observable preference patterns.

Anisa Aulia emphasizes this point by stating that analytics can provide information for visual direction decision-making in the early stages of the project. Instead of relying solely on intuition, designers can consider engagement data, demographic profiles or platform-specific reactions when making style choices. This approach does not eliminate creative subjectivity, but provides a layer of strategic analysis to increase the relevance and effect of communication. In this way, analytics help create a more deliberate alignment between visual expression and audience expectations, which increases the overall effectiveness of the design product.

“Aku biasanya memanfaatkan beberapa aplikasi online untuk menganalisis tren desain sama preferensi pengguna, yang ngebantuku membuat keputusan yang lebih baik untuk menunjang proses kreatif” (wawancara Anisa Aulia, April 2025).

“I usually use several online applications to analyze design trends and user preferences, which helps me make better decisions to support the creative process” (interview Anisa Aulia, April 2025).

This phrase implies that data-driven understanding can improve the conceptual framework before a work is further developed.

The results of the study showing the importance of trend analysis and data utilization in the design decision-making process provide evidence in favor of this statement. It deals with the usefulness component of the user experience framework, where technology is used to support knowledge of the users desires and preferences in addition to visual creation. In addition, using a data-driven approach, designers can create more focused and relevant work, which reduces the likelihood of revision and increases the effectiveness of visual communication. This approach suggests that incorporating trend research into the design process improves conceptual quality before the execution phase.

Meanwhile, Gagah Waskita Harimurti discusses how data analysis can increase the relevance and appeal of a design.

“Menurutku teknologi AI itu sendiri telah memberikan dampak signifikan dalam pekerjaanku, kayak AI tuh bisa ngebantu dalam analisis data sama memberikan ngerekomendasiin desain yang lebih sesuai dengan target audiens. Ini sih yang memungkinkanku untuk ngebuat desain yang lebih relevan dan menarik, serta menghemat waktu dalam proses pengembangannya” (wawancara Gagah Waskita Harimurti, April 2025).

“I think artificial intelligence technology itself has had a significant impact on my work, like artificial intelligence can help me in data analysis while providing design recommendations that are more in line with the target audience. This is what allows me to create designs that are more relevant and interesting, and save time in the development process” (interview Gagas Waskita Harimurti, April 2025).

Although the statement mentions artificial intelligence, the main point is that data analysis can be a useful tool to ensure that visual messages are presented effectively.

Research showing that the application of artificial intelligence in data analysis is critical to improving the precision of design decision making reinforces this statement. This relates to the usefulness dimension of the user experience framework, where technology allows designers to create results that are more relevant to the characteristics of the target audience. In addition, by making messages more focused and user-specific, this data-driven strategy increases the effectiveness of visual communication. This technique demonstrates that artificial intelligence serves as a technical instrument and strategic support in the visual design process.

Meanwhile, Tsaqif Ibrahim who regularly conducts small-scale research to understand the development of trends, has a similar view.

“Menurutku untuk tetap menghasilkan karya yang menarik itu, sering-sering melihat banyak referensi dan art style yang banyak disukai orang sih” (wawancara Tsaqif Ibrahim, April 2025).

“I think to keep producing interesting works, you often see a lot of references and art styles that many people like” (interview Tsaqif Ibrahim, April 2025).

This point of view emphasizes that even simple research and the use of certain visual forms can provide substantial added value in increasing the relevance of a design.

Research results that show the importance of researching references and understanding visual trends in the process of developing design ideas give credibility to this statement. This relates to the usefulness dimension of the user experience framework, where designers can create more relevant and engaging work by using knowledge of the audiences visual preferences. In addition, this method is a reflection of an observation-based approach to visual communication design, in which references are used as guidelines and sources of inspiration to adapt the message to the preferences and expectations of the intended audience. As a result,

the practice of seeking precedent enhances the visual appeal of the final design while strengthening its intellectual qualities.

Fathoni Anwar also adds a practical layer to the application of analytics by tracking audience reactions to published works.

“Untuk menciptakan karya yang inovatif, aku biasanya selalu cari inspirasi dari berbagai sumber seperti seni, budaya sama tren desain terkini. Sama aku juga berusaha buat memahami audiens akan kebutuhan mereka itu seperti apa, sehingga dari situ dapat menciptakan desain yang relevan dan menarik” (wawancara Fathoni Anwar, April 2025).

“To create innovative works, I usually always look for inspiration from various sources such as art, culture and the latest design trends. I also try to understand the audience what their needs are, so that from there they can create relevant and interesting designs” (interview Fathoni Anwar, April 2025).

This statement suggests that it is used not only in the early phases of the process, but also in post-production reviews to fine-tune tactics for future projects.

This statement is supported by research showing that recognizing consumer demand and seeking inspiration from a variety of sources is an important step in the conceptual design process. This relates to the usefulness pillar of the user experience framework, where knowledge of user preferences, culture and trends helps designers in creating more relevant and contextual work. In addition, this strategy is consistent with the perspective of visual communication, which highlights the importance of aligning the message with the characteristics of the audience. As a result, this approach not only contributes to the first design phase but also acts as a basis for assessment in order to improve the design approach in later projects.

Meanwhile, Ahmad Fauzan emphasized the need to keep ideas relevant in both social and temporal contexts.

“Proses penciptaan karya, biasanya aku ngegunain pengembangan ide dari suatu kejadian tertentu yang sedang hangat atau kejadian yang lalu sebagai referensi” (wawancara Ahmad Fauzan, May 2025).

“In the process of creating a work, I usually use the development of ideas from a certain event that is hot or past events as a reference” (interview Ahmad Fauzan, May 2025).

This approach shows how contextual analysis, which draws on current events and historical views, can be a significant source of qualitative data. Understanding the context of events and their significance for the audience allows designers to create works that are more relevant and in tune with the dynamics of society.

Research showing the importance of the social environment and current events as a source of design ideas reinforces this statement. This relates to the usefulness dimension of the user experience framework, where designers can create work that is more meaningful and in line with audience demands by having a better awareness of relevant topics. In addition, from the point of view of semiotics and visual communication, the figurative use of certain events allows designers to communicate messages that are more contextual and accessible to a general audience. As a result, this technique shows that the significance of design comes from its visual component and its relationship with ongoing social processes.

Based on the point of view of the respondents, it can be concluded that analytical technologies play an important strategic role in improving the quality, relevance and effectiveness of graphic design work. Analytics not only help designers detect trends and audience preferences, but also provide a data-driven foundation for more targeted creative decision-making. This approach is reflected in the work of Anisa Aulia, who analyzes design trends and user preferences and Gagas Waskita Harimurti, who emphasizes the importance of data analysis in developing appropriate design suggestions.

Furthermore, Tsaqif Ibrahim statements illustrate that simple research, such as finding visual references and popular trends, still has strategic importance in ensuring that the design meets the audience's expectations. Fathoni Anwar adds a practical dimension by tracking audience reactions as a basis for continuous evaluation, while Ahmad Fauzan emphasizes the importance of analyzing social and temporal contexts to deepen the meaning of a work.

Overall, these data suggest that analytics can be used at all stages of the creative process, from planning and production to post-production review. This integration not only increases the efficiency and relevance of the design, but also minimizes the possibility of visual communication failing to meet the demands of the audience. As a result, combining analytics with a designers creative usefulness can be a successful technique for creating work that is visually appealing, functionally effective and contextually significant.

3.1.3 Emotional Impact: Satisfaction (creative motivation) and Ethical Concerns

In the digital era, information and communication technologies have changed the way people connect, work and live their daily lives. Although these developments have provided enormous ease and opportunities, they have also created new barriers, especially in the area of interpersonal relationships and emotional well-being. Emotional intelligence, which includes the ability to recognize, understand and control emotions, is becoming increasingly important in overcoming these problems. Emotional intelligence is the ability of individuals to recognize, interpret, manage and direct their own emotions as well as those of others.

According to Goleman (2015), emotional intelligence consists of five fundamental components namely self-awareness, self-regulation, motivation, empathy and social skills. Self-awareness includes recognizing emotions as they arise, while self-regulation refers to the ability to control emotional reactions in a more constructive way. Motivation in the context of emotional intelligence, refers to the ability to direct emotions toward positive outcomes. Empathy is an important component that allows people to understand and respond correctly to the feelings of others, while social skills include the ability to communicate effectively and build meaningful relationships.

According to Cherniss and Goleman (2022), in this era of digitization and globalization, emotional intelligence is increasingly seen as a vital ability needed for personal and professional success. The capacity to handle stress, adapt to change and communicate effectively is critical to achieving personal and organizational goals.

The importance of emotional intelligence in graphic design should not be overlooked, especially in a digital era full of dynamics and constant change. A graphic designer is required to have not only technical skills, but also the ability to manage emotions, maintain motivation and maintain ethical integrity throughout the creative process. Personal happiness (creative impulse) and ethical anxiety appear as determining factors affecting the quality of creative work, mental resilience and career sustainability.

a. Satisfaction (creative motivation)

Satisfaction is one of the most important emotional aspects of a graphic artists working life. This sense of achievement usually occurs when the created work is well appreciated by the audience or client and meets the desired visual communication objectives. Such satisfaction not only serves as a kind of recognition of the creative efforts that have been made, but also

acts as a driving force or inspiration for the creative process to continue. Furthermore, the joy of a graphic designer comes not only from producing effective visual results, but also from the alignment of the chosen career with their inner drive and intrinsic interests. Career choices motivated by a great love of the arts and a desire to express ideas creatively tend to encourage high emotional engagement, which reinforces a sense of achievement in creative endeavors.

Tsaqif Ibrahim for example, he mentioned in his interview that he enjoys and is very interested in the field of visual design, which helps him communicate effectively.

“Ya karena saya memiliki ketertarikan di bidang seni dan tertarik menjadi desainer grafis, sama aku ngerasa punya hasrat untuk mengekspresikan ide dan konsep melalui visual. Menurutku desain grafis memungkinkan saya untuk menggabungkan kreativitas dan teknologi, serta berkontribusi dalam menciptakan komunikasi yang efektif” (wawancara Tsaqif Ibrahim, April 2025).

“Yes, because I have an interest in the field of art and interested in becoming a graphic designer and I feel like I have a passion to express ideas and concepts through visuals. I think graphic design allows me to combine creativity and technology, as well as contribute to creating effective communication” (interview Tsaqif Ibrahim, April 2025).

This statement implies that his happiness is judged not only by the end result of his design alone, but also from the ability to engage in work that reflects his passion while making a real contribution to visual communication. The combination of creativity and technology that he emphasizes greatly strengthens his creative process, this makes every design achievement more meaningful. This underscores the idea that happiness in the graphic design industry can be intrinsic, stemming from the realization of creative desires and the achievement of effective communication goals.

Research shows that intrinsic motivations, such as a love of art and the need to communicate ideas, have an important role to play in influencing a designers work experience. This is related to the emotional impact factor of the user experience framework, where emotional involvement in the creative process can increase satisfaction and improve the quality of design results. In addition, the features of a digital creative business, which requires a balance between technical capabilities and artistic expression, are reflected in the combination of creativity and technology. As a result, this approach highlights that the design process focuses on end results and individual experiences that enhance the effectiveness of visual communication.

On the other hand, Anisa Aulia also has a similar perspective, stating that she has always been fascinated by art and visual design.

“Aku tuh tertarik menjadi desainer grafis ya karena aku selalu memiliki ketertarikan yang mendalam terhadap seni dan komunikasi visual” (wawancara Anisa Aulia, April 2025).

“I am interested in becoming a graphic designer because I have always had a deep interest in art and visual communication” (interview Anisa Aulia, April 2025).

This statement highlights how a consistent interest in aesthetics and communication acts as an emotional basis that sustains the sense of satisfaction that comes from working in the field of graphic design. As a result, the pleasure of graphic designers is determined not only by external feedback on their work, but also by the fulfillment of internal goals embedded in them. A creative process in tune with one passion adds inherent meaning to each outcome, providing deep and long-lasting happiness.

Research shows that a designers creative experience is strongly influenced by their interest in art and visual communication. This is related to the emotional impact factor in the framework of user experience, where emotional involvement in a field can increase motivation, job satisfaction and consistency. In addition, a great interest in communication and aesthetics motivates designers to pay more attention to how visual signals are communicated and interpreted by the viewer. As a result, this approach shows that both technical ability and the degree of personal involvement in the creative process have an impact on the quality of design.

Meanwhile, Renggatama Putra emphasized the importance of her work for her academic background.

“Ya karena akukan kerja di bidang desain dan ya sesuai dengan jurusan pendidikan saya sebelumnya, jadi ya sesuai passion” (wawancara Renggatama Putra, April 2025).

"Yes because I work in the design field and yes according to my previous education department, so yes according to my passion” (interview Renggatama Putra, April 2025).

This suggests that happiness can also come from the alignment of one abilities with the field of work, which develops confidence and professional validity in all design achievements.

Research shows that designers have a better work experience when their educational backgrounds, skills and hobbies are aligned with each other. This relates to the emotional impact pillar of the user experience framework, where self-confidence and ease in performing

tasks can increase job satisfaction and consistency. In addition, the alignment of fields of work and capabilities allows designers to make better use of technology and design tools. Therefore, this requirement indicates that the internal alignment of professionalism and enthusiasm, in addition to external circumstances, determines the quality and sustainability of design practice.

The happiness demonstrated by the graphic designers in the aforementioned statement shows how intrinsic characteristics such as curiosity, passion and alignment of competencies influence pleasant emotional experiences. This conclusion is consistent with the approach of work psychology, which argues that work happiness comes not only from external rewards or recognition, but also from the fulfillment of internal impulses based on personal values and interests.

In the context of graphic design, it is the alignment between interest in art, technical ability and visual communication goals that allows designers to enjoy a high level of emotional involvement. Such engagement not only improves the quality of creative output, but also develops creative resilience, helping designers to stay motivated even when encountering obstacles during the creative process. Furthermore, Renggatama Putra emphasizes the alignment of educational background with professional practice, which offers a layer of professional legitimacy that increases self-confidence and personal satisfaction.

b. Ethical Anxiety

Ethical anxiety in graphic design refers to the feelings of alertness, worry or doubt felt by designers when faced with moral dilemmas or potential violations of conventions, laws and the rights of others throughout the creative process. In contrast to technical barriers of an essentially practical nature, ethical anxiety arises from the moral awareness and consideration of values that influence all creative decisions.

This topic is gaining prominence in today digital era, which coincides with technological breakthroughs such as artificial intelligence and generative tools that present important considerations about copyright, originality and ownership of creative works. Ease of access to digital resources increases the likelihood of unauthorized use of content or violation of software license agreements, while increased social and cultural sensitivity requires sensitivity in reacting to situations with possible moral consequences.

Thus, ethical anxiety has to do not only with the process of creating a work, but also with whether the work should be produced using a particular method or approach. Higher levels

of ethical awareness encourage designers to think about social impact, legal compliance and professional integrity that ensure that the creative process results in products that are not only visually beautiful but also meaningful and ethically responsible.

In graphic design practice, ethical anxiety often arises when designers are faced with a choice between using cutting-edge technology and maintaining the integrity of their work. One of the most frequently debated topics is the application of artificial intelligence and generative technologies.

Anisa Aulia for example, recognizes the great promise of artificial intelligence while highlighting its controversial parts.

“Sebenarnya keberadaan AI menurutku merupakan sebuah kontroversi, namun kalau dimanfaatkan ini bisa menjadi sumber daya yang mumpuni, namun keberadaannya sendiri menurutku masih melanggar copyright dari artist sih” (wawancara Anisa Aulia, April 2025).

“Actually, the existence of artificial intelligence in my opinion is a controversy, but if used this can be a qualified resource, but its existence itself still violates the copyright of the artist” (interview Anisa Aulia, April 2025).

This statement emphasizes that despite the benefits of artificial intelligence as a driver of innovation, there is still a fundamental problem of copyright infringement, which if ignored can harm professional ethics. Beyond copyright issues, ethical inconveniences can arise from the recognition of the need to legally use design tools and materials.

Research shows that the application of artificial intelligence in graphic design not only increases productivity but also presents ethical issues that designers must be aware of. It deals with the emotional impact within the framework of user experience, where the attitude, comfort level and perception of designers towards technology can be affected by copyright and originality issues. Furthermore, the unlimited use of artificial intelligence has the ability to disguise the ownership of the work because the design work embraces the value of originality and identification of the creator from the perspective of visual communication and semiotics. Therefore, the perspective of the interviewees highlights that in order to maintain integrity and emotional value in graphic design methods, technical optimization must be aligned with ethical awareness.

Gagas Waskita Harimurti for example, emphasizes the need to use licensed software to achieve the best work efficiency.

“Tantangannya menurutku adalah kompatibilitas file antar aplikasi dan performa software dan hardware sih. Biasanya ngatasinya itu dengan menyamakan ekstensi file yang diperlukan untuk performa hardware dan software. Saya mengatasinya dengan menggunakan hardware dan software yang lebih bagus dan asli dengan cara menyewa” (wawancara Gagas Waskita Harimurti, April 2025).

“The challenge I think, is file compatibility between applications and software and hardware performance anyway. Usually overcome it by equating file extensions required for hardware and software performance. I overcame this by using better and original hardware and software by renting” (interview Gagas Waskita Harimurti, April 2025).

Although his comments focused on the technical side, the use of licensed software has important ethical dimensions such as respecting license agreements and the work of developers.

Research shows that technical barriers such as file compatibility and device performance limitations affect the emotional experience of designers alongside the process. This has to do with the emotional impact dimension of the user experience paradigm, where the use of more stable equipment and software actually increases confidence and job satisfaction, while technological limitations can lead to dissatisfaction and lack of comfort during the design process. In addition, the use of licensed software demonstrates ethical and professional understanding, which can provide a sense of security in the work. Therefore, the tactics used by informants suggest that infrastructure readiness influences the quality of emotional experiences in graphic design practice in addition to supporting technical fluency.

On the other hand Renggatama Putra provides a unique perspective which, although it does not directly address the legal difficulties closely associated with ethical unease. He argues that the use of technology, especially artificial intelligence has a major influence on image change in graphic design, potentially speeding up the creative process while raising ethical concerns about the authenticity of images.

“Menurutku sangat berpengaruh, terutama AI yang membantu manipulasi foto, sangat mempercepat proses membuat desain grafis” (wawancara Renggatama Putra, April 2025).

“I think it is very influential, especially artificial intelligence that can help with photo manipulation, greatly speeding up the process of making graphic design” (interview Renggatama Putra, April 2025).

This statement implies a conversation about the ethical limitations of using visual modification technologies, especially when the end result has the potential to influence public opinion.

Research showing that the application of artificial intelligence in visual manipulation has ethical concerns in design practice, in addition to improving work efficiency, supports this claim. This relates to the emotional impact pillar of the user experience framework, where the designers views and accountability to the message conveyed can be affected by how easily graphics can be changed. Furthermore, if not used appropriately, the increasingly realistic results of modifications can affect public opinion from the point of view of visual communication. To preserve the integrity of the final visual message, the technique highlights the need to balance the acceleration of the process using artificial intelligence with ethical awareness.

The results of the interviews of the interviewees showed that ethical anxiety is a factor that cannot be ignored in today graphic design practice, especially given the rapid growth of technology. Anisa Aulia emphasized that, although artificial intelligence has great potential to drive innovation, it also raises great concerns regarding copyright infringement. This shows that an understanding of creative integrity is an important pillar in developing a designers professional responsibilities.

Furthermore, Gagas Waskita Harimurti offers an ethical point of view by emphasizing the need to adopt licensed software. While this may seem like a more technical issue, it simply shows respect for the intellectual property rights of software creators, which is a concept that is sometimes overlooked in business.

Renggatama Putra also emphasizes another ethical dimension, namely the authenticity of visual creations which is increasingly questioned given the ease of image manipulation made possible by artificial intelligence. From this point of view, ethical anxiety can be interpreted as a reflection of professionalism, ensuring that the creative process is not only goal-oriented but also in accordance with moral ideals, legal requirements and conventions of society.

Ethical anxiety in graphic design is characterized by a strong moral awareness of the social, legal and professional implications of a work. Based on the perspective of respondents, it is clear that this issue covers a wide range of things, from copyright protection and the legality of software licenses to the validity of graphics created using technology. As creative technologies such as artificial intelligence become more sophisticated, designers must balance

efficiency and creativity with established ethical values. This knowledge not only protects the professional's reputation, but also guarantees that the products produced are morally sustainable and relevant in an industry that is increasingly concerned with copyright and artistic integrity.

3.1.4 Meaningfulness: Visual Identity (local context) and Differentiation

The graphic design business has evolved into one of the most dynamic and ever-changing fields in recent decades. This growth is driven by advances in digital technology, increased access to design tools and changes in visual communication in both corporate and cultural contexts. Contemporary graphic designers are required to have more than just creative talent but they must also be able to keep up with technological developments and adapt quickly to changing trends and increasingly complex market needs. Technology has made the design process more efficient, collaborative and internationally interconnected.

The advent of the internet in the late 1990s marked another major development in the field of graphic design. Web design is becoming increasingly important as companies and individuals seek to develop an online presence. This period saw the rise of interactive design, with user experience taking precedence over website layout, navigation and visual aspects.

As technology advances, graphic design becomes more accessible to a wider audience. A number of user-friendly design tools and internet platforms have emerged, allowing laypeople to produce basic visual materials. However, these advances pose problems in maintaining the quality and specificity of professional design work. In recent years, the increased use of mobile devices and social media has had a major impact on graphic design. Designs must now be optimized for a variety of screen sizes and formats, with visual content playing an important role in digital marketing efforts. However, this development has created new barriers, particularly for designers working at the local level.

According to an article from All Time Design, professional designers face fifteen common problems during their careers. These issues include meeting client expectations, working under tight deadlines, maintaining creativity, incorporating feedback, balancing aesthetics and functionality, keeping up with the latest trends, managing workloads, adapting to new technologies, ensuring consistency, designing for multiple platforms, handling revisions, communicating design concepts, working within budget constraints, collaborating with teams and addressing intellectual property issues. Each of these issues requires designers to continually improve their communication skills, time management capabilities and

flexibility in order to create work that is not only visually beautiful but also successful and relevant to the needs of clients and the ever-evolving design industry.

Yogyakarta is known as a cultural and educational center that creates many creative talents and is home to a number of well-known design organizations. Yogyakarta vibrant art community, rich local cultural heritage and thriving creative economy make it an ideal location for the growth of the design sector. However, this uniqueness presents a unique barrier to technology adoption, as designers are sometimes faced with the dilemma of protecting local values while adopting global technologies that often come from different cultural backgrounds and work systems.

Barriers to technology adoption for graphic artists in Yogyakarta include not only technical aspects, such as the availability of equipment and software, but also social, economic and cultural aspects. On the one hand, technology provides efficiency, increased productivity and global access. Technology raises concerns about the digital divide among practitioners, the loss of creativity due to dependence on templates or algorithms and the pressure to create works in a very short period of time. Under certain circumstances, design technology, which ideally serves as a productivity tool, can actually lead to concerns about the loss of creative identity and a threat to the long-term viability of the design profession.

Given this dynamic, graphic designers must take into account not only technical and aesthetic factors, but also the meaning contained in each work. This is where the concept of meaningfulness comes into play, since visual identity (in the local context) and differentiation serve not only as aesthetic elements, but also as strategic tools to ensure that creative work maintains its value, relevance and particularity in an increasingly homogeneous global visual landscape.

a. Visual Identity

In graphic design, visual identity is a set of visual elements that are regularly used to reflect the image, character and values of an individual, company or institution. In the context of the results of this study on graphic designers in Yogyakarta, visual identity is seen not only as an aesthetic component, but also as a reflection of the creators personality and the cultural environment in which the work is created. Interviews with various participants showed a general emphasis on creating distinctive visual qualities that distinguish their work from the work of other designers.

According to Tsaqif Ibrahim, Yogyakarta graphic design environment is distinguished by its significant cultural history.

“Aku ngelihat sih kayak ekosistem desain grafis di kota ini tuh punya karakteristik yang unik yang mencakup kekayaan budaya lokal yang kuat, seperti batik dan seni rupa misalnya, yang bisa membentuk identitas visual yang khas. Kemudian ada komunitas kreatif yang aktif, dengan banyak acara seperti pameran dan workshop seni yang mendukung kolaborasi dan pertukaran pengetahuan antar desainer” (wawancara Tsaqif Ibrahim, April 2025).

“I see that the graphic design ecosystem in this city has unique characteristics that include a strong local cultural wealth, such as batik and fine arts, which can form a distinctive visual identity. Then there is an active creative community, with many events such as exhibitions and art workshops that support collaboration and knowledge exchange between designers” (interview Tsaqif Ibrahim, April 2025).

This phrase implies that visual identity is more than just aesthetic but that it also reflects the social and cultural factors that shape the creative process.

This statement is supported by research that shows how the Yogyakarta graphic design process creates a visual identity by combining local cultural values with the designers individual style. This suggests that visual identity serves as a representation of the social and cultural framework that underlies the creative process in addition to its aesthetic value. This feature is related to the meaningfulness dimension of the user experience framework, where the design is evaluated not only in terms of its usability or appearance, but also of the meaning that is built and understood by the user. In addition, from the point of view of visual communication, design components such as colors, fonts and symbols convey certain cultural and ideological values that influence how the audience interprets the message. Thus, visual identity is a social construct that represents how the culture, experience and creative process of the designer interact.

Aulia Anisa has a similar perspective, emphasizing the importance of incorporating elements of local culture into contemporary architecture.

“Menurutku hubungan antara nilai-nilai budaya lokal di Yogyakarta dan desain grafis kontemporer dapat dilihat dari penggabungan motif tradisional, representasi identitas lokal dan inovasi kreatif. Aku pikir ini sih yang dapat memperkaya karya desain dan mempromosikan kekayaan budaya daerah” (wawancara Anisa Aulia, April 2025).

“I think the relationship between local cultural values in Yogyakarta and contemporary graphic design can be seen from the combination of traditional motifs, representation of local identity and creative innovation. I think this is what can enrich the design work and promote the cultural wealth of the region” (interview Anisa Aulia, April 2025).

This quote confirms that incorporating historical components into modern design can enhance the meaning of a work while providing a substantial difference in a competitive creative sector.

Research shows that while designers can use technology and visual exploration to enhance their creativity, they also face a number of operational challenges, including limited access to devices and software, as well as less than ideal working conditions. This shows that the right work environment is just as important as innovative skills for the sustainability of creativity. This condition relates to meaningfulness in the user experience paradigm, where the alignment of contributions, workload and incentives can affect designers perceptions of the value and significance of their work. Therefore, to maintain a sense of self-worth and purpose of designers in their work, structural support must be balanced with the development of visual identity and creative innovation.

Gagas Waskita Harimurti has a similar opinion, seeing the willingness of Yogyakarta designers to experiment by combining traditional and modern components.

“Menurutku desainer di Yogyakarta cenderung terbuka untuk bereksperimen, kayak menggabungkan elemen tradisional dengan pendekatan modern, yang menghasilkan karya yang unik dan menarik. Tapi ada hal lain yang cenderung kurang diperhatikan kayak banyak sekali ketidaksesuaian jobdesk dengan upah yang diterima” (wawancara Gagas Waskita Harimurti, April 2025).

“I think designers in Yogyakarta tend to be open to experimenting, kayak combines traditional elements with a modern approach, which produces unique and interesting works. But there are other things that tend to be less noticed like a lot of jobdesk discrepancies with the wages received” (interview Gagas Waskita Harimurti, April 2025).

According to Gagas Waskita Harimurti, although graphic designers in Yogyakarta show innovation through a blend of traditional and modern elements that strengthen their visual identity, the sustainability of such creativity still requires a fair work environment with

compensation in accordance with the workload so that motivation and professionalism are maintained.

Research shows that while designers can use technology and visual exploration to enhance their creativity, they also face a number of operational challenges, including limited access to devices and software, as well as less than ideal working conditions. This shows that the right work environment is just as important as innovative skills for sustained creativity. This condition is related to the emotional impact within the framework of user experience, where external elements such as workload and Remuneration have a significant impact on job satisfaction and designer motivation. To maintain the professionalism and productivity of designers, structural support must be balanced with increased visual identity and creative innovation.

Based on the findings of the study, the designers affirm that the visual identity of Yogyakarta graphic designers is not only based on technical ability or software proficiency, but also on the ability to transform local cultural values into a visual language that is appropriate to today times. This creative process requires a willingness to explore and integrate traditional aspects such as batik patterns, fine arts or local emblems with current styles that reflect global market trends. This shows that the power of visual identity lies not only in its unique form, but also in its ability to act as a vehicle for maintaining and promoting the culture of the region.

However as stated by Gagas Waskita Harimurti, creativity must be supported by healthy and fair working conditions, including compensation in accordance with job demands, so that the creative process can be sustained over time.

In the end, a distinctive visual identity rooted in local culture is a strategic tool for Yogyakarta graphic designers who want to differentiate themselves in a competitive market. Integrating cultural values into the design not only increases the specificity of the work, but also helps to preserve the cultural heritage. However, the sustainability of the creation of an authentic visual identity depends to a large extent on the support of an ecosystem of professionals who value creative work appropriately in terms of recognition and compensation, thus allowing designers to consistently produce work with sustainable motivation and quality.

b. Differentiation

Differentiation in graphic design refers to the ability of designers to create works with distinctive features that stand out in the midst of intense competition. According to the findings

of research on graphic designers in Yogyakarta, differences are not only achieved through aesthetic features or visual styles, but also through creative techniques that combine personal uniqueness with local cultural richness and technological adaptation.

According to interviews, some designers emphasize that to stay competitive, they must build a visual approach that differentiates their work from the work of other designers, both local and national.

Ahmad Fauzan for example, emphasizes the need to rely on concepts that are relevant to current social and temporal conditions.

“Proses penciptaan karya, biasanya aku ngegunain pengembangan ide dari suatu kejadian yang sedang hangat atau kejadian yang lalu sebagai referensi” (wawancara Ahmad Fauzan, May 2025).

“In the process of creating a work, I usually use the development of ideas from a hot event or a past event as a reference” (interview Ahmad Fauzan, May 2025).

This statement sees that differences can result from the selection of topics and stories that are highly relevant to the audience, allowing a work to be not only visually different but also contextually significant.

Research findings that demonstrate how a work has pertinent significance and is tied to the users life context support this claim on the meaningfulness part of user experience. This demonstrates that drawing inspiration from current events or concerns not only improves visual distinctiveness but also creates a deep connection between the audience and the work. Therefore, design is a medium that represents social reality and communal experience rather than just being an aesthetic object, which raises the work's worth and relevance in a larger context.

Fathoni Anwar provides a unique and complementary perspective, utilizing various sources of inspiration to enhance the individuality of his works.

“Untuk menciptakan karya yang inovatif, aku biasanya selalu mencari inspirasi dari berbagai sumber, seperti seni, budaya dan tren desain terkini. Sama aku juga berusaha untuk memahami audiens dan kebutuhan mereka itu seperti apa, sehingga dari situ dapat menciptakan desain yang relevan dan menarik” (wawancara Fathoni Anwar, April 2025).

“To create innovative works, I usually always look for inspiration from various sources, such as art, culture and the latest design trends. At the same time, I also strive to understand the audience and their needs, so that from there they can create relevant and attractive designs” (interview Fathoni Anwar, April 2025).

This method emphasizes the need for openness to multiple sources before refining them into a specific and unique visual language.

Research shows that meaningfulness in user experience is shaped not only by design goals, but also by how those designs relate to the users cultural environment and needs. This shows that the act of seeking inspiration from multiple sources and understanding the audience is essential to creating meaningful content. As a result, the final design is not only aesthetically pleasing but also has contextual significance and can strengthen the bond between the work and its consumers.

Furthermore, Tsaqif Ibrahim emphasized the need to research the various art forms that are currently popular among the people and then adapt them with a personal touch.

“Menurutku untuk tetap menghasilkan karya yang menarik itu, sering-sering melihat banyak referensi dan art style yang banyak disukai orang” (wawancara Tsaqif Ibrahim, April 2025).

“I think to keep producing interesting works, I often see a lot of references and art styles that many people like” (interview Tsaqif Ibrahim, April 2025).

This shows that differences do not require rejection of existing trends, but rather an increase in these trends in order to better reflect the individuality of the creator (graphic designer).

This statement is supported by research findings showing that the meaningfulness aspect of the user experience has to do with how the design is able to build personal relationships and relevance with the user. This highlights that the use of audience-favorite references and trends is a way to create meaning that is more in line with user experience and preferences than simply following momentary trends. Therefore, investigating trends in conjunction with a designers unique touch can result in a piece that is not only captivating but also has a deep and relevant meaning.

In graphic design, distinctiveness is used not only to stand out in a competitive market, but also to define the professional identity of a designer. These data show that in Yogyakarta, differences are determined by a combination of three key elements such as contextual relevance, reference variation and trend adaptation.

Ahmad Fauzan emphasizes that linking a topic to social issues or specific events can help the audience form an emotional connection with the work, thus making it more meaningful and durable.

Meanwhile, Fathoni Anwar emphasizes that having a diverse range of inspirations, from art to contemporary design trends, allows for the investigation and development of a distinctive visual language.

Tsaqif Ibrahim also states that following popular trends, when combined with a personal touch, enriches the character of the work without sacrificing creative uniqueness. The combination of these three techniques results in layered differentiation that is visually distinct, culturally relevant and adaptive to industry trends.

This study found that the current graphic design techniques in Yogyakarta are strongly influenced by the integration of digital technology, especially the use of various applications and artificial intelligence. Designers no longer rely on a single piece of software, but instead integrate various tools such as Procreate, Adobe Illustrator, Photoshop, Figma and Canva based on their specific goals at each stage of the process. This method improves the design process, especially through interoperability between applications, which is an important aspect of optimizing workflows.

On the other hand, artificial intelligence has proven to be an accelerator of creativity, not only accelerating production but also supporting the invention of ideas and the creation of design concepts. However, these findings are not entirely encouraging, as the use of artificial intelligence raises ethical issues, especially around questions of originality and copyright infringement, which continue to concern designers.

In addition, the interaction of designers with technology includes emotional and cultural elements in addition to technical elements. The function of technology (efficiency and productivity), emotional experience (work motivation and happiness), and cultural meaning created through the integration of local values and individual styles all have an impact on the

quality of design work. This proves that design is not only a technical process but also an interpretative process associated with identity.

In terms of uniqueness, the designers show a flexible and contextual approach, where the use of visual elements including local culture, is not the main choice but is tailored to the needs of the project, target audience and client preferences. In other words, the uniqueness of a work depends not only on its cultural character, but also on the designers ability to combine trend references, visual style and technological elements. However, there are still a number of operational difficulties with this method, including uneven access to licensed software, hardware performance limitations and file compatibility issues between applications.

In the end, the study shows that graphic design practices in the digital age require a difficult balance between technological effectiveness, artistic exploration, ethical awareness and the preservation of cultural identity.

CHAPTER IV

4.1 CONCLUSION

According to the findings of the research, graphic designers in Yogyakarta use an organized yet adaptive process that includes concept formulation, drawing, execution, revision and finalization. The strategic use of several applications, each of which is selected according to its functional capabilities, supports these stages. To get the best design results, interoperability between applications and the creation of effective processes are very important. The research issue of how designers use technology to improve creativity, productivity and visual quality is directly answered by these findings.

In addition, the study suggests that a user experience framework that includes usability, usefulness, emotional impact and meaningfulness, offers an overarching lens through which to look at these behaviors. In their creative process, designers prioritize not only technical efficiency and utility but also emotional engagement, professional satisfaction and cultural or personal connections. This shows that graphic design practices in the digital age include psychological and cultural aspects in addition to technical performance.

The designers employ adaptive tactics including the creation of asset libraries, workflow architectures, licensed software and appropriate hardware to maintain quality and productivity. Simultaneously, the incorporation of artificial intelligence makes a significant contribution to simplifying processes and facilitating the production of ideas. However, this development also raises ethical issues that affect the views and decision-making of designers, especially with regard to originality and copyright.

Overall, the results show that graphic design procedures in Yogyakarta are much more creative and efficient when various digital applications and artificial intelligence technologies are used. To create successful and meaningful visual communication, designers must combine the use of technology with critical awareness, professional accountability and contextual sensitivity. However, these advantages are accompanied by technical difficulties and ethical problems.

4.2 RESEARCH LIMITATIONS

Limitations or disadvantages of the research include its geographical scope and contextual focus. The research is limited to graphic design practitioners in Yogyakarta, therefore its findings essentially represent the social, cultural and creative ecology of the

region. As a result, the application of such findings to other places with different socioeconomic characteristics or infrastructure constraints must be done with caution. The findings are best understood as strong contextual representations of the research environment, although they may not be entirely relevant if extended to larger or diverse contexts.

Another limitation is the lack of triangulation data used in this research. Basic Data is collected through interviews and observations, but is not supplemented by additional sources such as design analysis, end-user surveys or quantitative data on technology use. The absence of this triangulation weakens the validity of the findings because the results depend primarily on the informants perception and narrative. As a result, further research should expand the data collection methodology to increase the validity of the findings and provide a more complete understanding of the phenomenon under study.

4.3 RECOMMENDATIONS

Although this study has limitations and has not yet reached its ideal form, the authors seek to provide many recommendations as a follow-up to the findings. These recommendations are expected to make practical and academic contributions, as well as provide valuable input to future graphic designers, educational institutions, application developers and researchers as they undertake studies and practices related to the use of digital technologies and artificial intelligence in graphic design.

Research recommendations are as follows:

First, graphic designers must constantly improve their ability to use breakthrough digital technologies, especially artificial intelligence while still maintaining artistic uniqueness and individuality. Artificial intelligence should be positioned as a tool to help speed up the process of ideation and production, not as a substitute for human creativity. This allows designers to maintain the uniqueness of their work while responding to the increasingly competitive dynamics of the industry.

Second, the study suggests that educational institutions improve curricula by incorporating digital literacy, ethical awareness in the use of artificial intelligence and multidisciplinary methods that combine design, information technology and Communication Studies. Such integration is necessary to guarantee that the designers of the future not only master the technical capabilities, but also develop a critical view in response to technological advances and their ethical implications.

Third, application developers and stakeholders in creative businesses must consider the practical demands of designers in terms of software accessibility, pricing and sustainability. Training, feature enhancements based on user requests and adaptive licensing rules will dramatically improve productivity and creative outcomes.

Fourth, future research should increase the number and variety of participants by using more complete data triangulation approaches, such as integrating in-depth interviews, design work analysis, quantitative surveys and end-user testing. Longitudinal studies can also be used to track the evolution of technology adoption and utilization over time. The initiative will generate more in-depth and representative data with broader implications for the growth of graphic design businesses in various locations.

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