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| RESEARCH ARTICLE

Exploring Graphic Designers' Motivations and Their Influence on Environmental Sustainability in Design Practice

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| ABSTRACT

This research explores the critical role of designers' motivations in environmental sustainability considerations in graphic design. While existing research examines the material aspects of sustainable design, this paper argues that designers' mindsets are a crucial but often overlooked factor influencing their choices. Focusing on both South African and Ghanaian contexts, the study investigated the motivations of graphic designers in these distinct yet interconnected creative landscapes. The findings reveal that economic benefits, personal passion, client satisfaction, and professional recognition are primary motivators for South African and Ghanaian designers. These motivations were within Maslow's hierarchy of physiological, safety, and belongingness levels, which are hinged on personal and profit gains, and thus overshadowed conscious consideration of environmental sustainability in the graphic designers' practices. Thematic analysis on the interview data was conducted through the lens of Maslow's Hierarchy of Needs theory, providing a framework for understanding the motivational drivers at play, which is uncommon in design research. The findings, therefore, demand the need for a mental shift that is driven by the need to counter negative environmental consequences. Based on the research outcome, professional design associations in both South Africa and Ghana may play a vital role in promoting and enforcing sustainable practices and should actively demand environmentally conscious design solutions from graphic design practitioners, creating a market-driven incentive for sustainable practices.

| KEYWORDS

| ARTICLE INFORMATION

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1. Introduction

The increasing influence of personal and business gains, sustainability, and environmental concerns significantly impacts design practice in the modern day. This study investigates how designers address the growing complexity of these intertwined issues. Designers are increasingly drawn to sustainability, which is evident in the rise of "green" and "sustainable" design movements. This encompasses a practice, from utilising recycled materials and developing eco-friendly services to applying "design thinking" to reorganise systems (Hroch, 2014). However, researchers have raised concerns about implementing sustainability principles among graphic designers. Benson and Napier (2012) found that, despite years of incorporating sustainability into their education, many communication designers prioritise personal and professional interests, such as securing stable employment, over environmental concerns. They argue that practising sustainability becomes a matter of choice rather than necessity. Similarly, Dritz (2014) observed that while most graphic designers acknowledge the importance of sustainability, they rarely integrate it into their work. Critics of human-centred design argue that this anthropocentric approach, prevalent during industrialisation, has contributed significantly to our current ecological and societal challenges. They emphasise that a designer's ethical stance should not be merely a marketing tool to attract clients but should fundamentally influence their design decisions and acknowledge the inherent political implications of their choices. As Wendt (2017) states, "If humans are at the 'centre', then things like environmental sustainability, social justice, care for us, economic equality... most political aspects of design, cannot be

adequately considered." Dritz (2014) further highlights that clients often struggle to justify the integration of sustainability into their projects due to a lack of information, education, and adequate support structures for designers.

Dritz (2014) argues that a lack of clear connections between academic definitions of sustainability and the practical realities of graphic design hinders designers' understanding of its relevance. This is further compounded by a lack of knowledge of sustainability symbols and products within the graphic design production process, as Bonsu et al. (2020) discovered. To mitigate their environmental impact, designers must carefully consider their choice of tools and materials. Fry (2009, p. 7) suggests replacing "sustainability" with "sustain-ability" to emphasize a more materially grounded approach and acknowledge design's potential to catalyze a "radical change of direction" for humanity. While the lack of sustainability practices among graphic designers presents a significant challenge, innovations such as upcycling and recycling are emerging to address the waste generated by graphic design production processes (Bonsu et al., 2022). Despite the wealth of information on sustainable practices and strategies provided by researchers like Ceschin and Gaziulusoy (2016), Benson and Napier (2012), and Bonsu et al. (2020, 2022), the findings of Dritz (2014), Benson and Napier (2012), and Bonsu et al. (2020, 2022) consistently point to a concerning lack of engagement with sustainability principles within the graphic design profession. All the challenges to sustainability in graphic design practices discussed are geared towards visible challenges with less focus on invisible issues, such as motivations. This study, therefore, attempts to explore the motivational mindsets of graphic designers and analyse their likely effects on the environmental sustainability considerations in the graphic designers' design decisions in the context of Maslow's Theory of Needs.

2. Review of literature
2.1. Beyond the brief: Sustainability in graphic design practice
While various systems and tools for sustainable graphic design have been developed in theory by researchers and organisations like the International Association of Graphic Design Associations (ICOGRADA), the Society of Graphic Designers of Canada, and the Australian Graphic Design Association (AGDA), practical implementation remains significantly lacking. Studies conducted in Ghana (Bonsu et al., 2020) and Colombia (Mejía et al., 2022) have identified key challenges hindering the adoption of sustainable practices, including limited knowledge, inadequate infrastructural support, and restrictive work climates or policies within design firms. Within South Africa, a framework integrating graphic design practice with posthumanism and the Ubuntu philosophy could offer valuable insights. This approach emphasises inclusion, sustainability, and community participation by fostering a deeper understanding of the interconnectedness between humans, non-humans, and diverse cultures (Chmela-Jones, 2024). Despite the theoretical advancements and the development of sustainable materials, the practical adoption of these principles remains low. This paper reports on research investigating graphic designers' motivations and how these motivations influence their engagement with environmental sustainability.

2.2. Environmental sustainability in the context of graphic design.
The materials (papers, metals, rubbers, and polythene, just to mention a few) used by graphic designers to support the communication of their messages may trigger environmental challenges during the processing of these materials because of the by-products produced (Assibey, 2019). These by-products pose life-threatening challenges to the environment. They may endanger the lives of living organisms (Benson & Perullo, 2017). However, the advent of information communication technology has led to the adaptation of digitalization of most graphic design materials into e-brochures, e-magazines, e-journals, and e-news (Bonsu et al., 2022). The electronic graphic design outputs have resulted in declining demand for books and magazines (Scan, 2015, p. 2). Global Web Index (2017) and Scan (2015) reported that digital press patronage is increasing compared to traditional press. The effect is a decline in environmental decay due to low dependency on materials that cause harm to the environment, based on the ecological decay they cause when disposed of after use or during production. When the shift into the digital world is examined critically, some businesses will encounter challenges and struggle to survive economically since they depend on physical production.

2.3. Understanding actions through motivations: The graphic designers' practices in the context of Maslow's theory of Needs
Actions or practices are firmly tied to intrinsic or extrinsic rewards, called motivations (Abulof, 2017). These motivations are central in the practice of every discipline. It is, therefore, clear that a type of motivation triggers every practice that graphic designers engage in. Now, in the context of Maslow's theory of needs, there have been a series of critics of the theory due to the context factor and gender bias (Cullen & Gotell, 2002), which may affect the hierarchy of needs, but the needs are still valid and may need additions based on context (Abulof, 2017). Maslow's hierarchy of needs argues that human motivation is driven by a series of needs arranged in a hierarchical order: physiological (food, water, shelter, clothing, sleep), safety and security, belongingness and love, esteem, and self-actualisation (Maslow, 1987). These needs not only influence individual behaviour but also extend to professional contexts. This study utilises Maslow's theory to understand the motivations of graphic designers in developing nations regarding environmental sustainability.

3. Methodology
The Ghanaian study was conducted in Asafo, a suburb of Kumasi, and was selected through typical case sampling to represent developing African nations (Africanvault, 2016). This choice was also influenced by the lead author's familiarity with the Ghanaian context as a graphic artist and design researcher-educator. Kumasi was chosen for its economic similarities to other towns across Ghana (Ghana Districts, 2019). The study employed a qualitative research approach, utilising purposive and convenience techniques, which are common in social science research (Creswell, 2009). In South Africa, the research focused on professional graphic designers and was not limited to a specific geographic locale. A purposive and convenience sampling method was employed. Data was collected through interviews with twenty-six graphic designers and ten creative directors, selected purposively, and analysed thematically as captured in Table 1. Selection in the South African case was based on participants' diverse profiles in terms of gender, race and years of experience, and socio-economic background as captured in Table 1. The sample included designers with two to twenty-five years of experience, guided by the theoretical underpinnings of the research. It was limited to designers who fit specific criteria of expertise, practice, and commercial engagement (Miles et al., 1994).

Table 1: Demographic characteristics of sampled respondents

Respondents	Samples Selected	Criteria for Selection	Reasons for inclusion
Graphic designer	26	2 to 25 years of experience	Creating visuals and materials selection
Art director	10	10 to 25 years of experience	

3.1. Data collection procedure and method
The Ghanaian study collected data using an interview guide, a field notebook to record observations (Creswell, 2009), and digital tools such as smartphone cameras and Google Docs to capture and store images. The South African study collected data primarily through semi-structured individual interviews. Note-taking and participant feedback through open-ended questions were also employed. Both studies adopted a narrative approach to data analysis, focusing on in-depth descriptions and interpretations of how interviews were utilised in graphic design research (Williams, 2011). This approach recognises that interviews are not merely a passive exchange of information but a process of constructing and shaping realities and life experiences by the interviewer and the respondent (Gubrium et al., 2003).

From a qualitative perspective, an interview is a forum for dialogue between two people (interviewer and interviewee), in which the interviewer poses a series of either purposefully constructed (formal) or unstructured (informal) questions, and the interviewee gives feedback based on their shared understanding of the context. In both studies, the interview was used as a method of data collection and an interview guide to cover designers' motivations and their effects on decisions, among other topics. An interview as a data-gathering tool utilises three stages for collecting the required data. The stages were pre-interview (preparation), field interview, and post-interview. The activities throughout each phase have been presented in detail in the ensuing paragraphs. In Ghana, the three forms of interviews used were face-to-face on-site (in the art firm), face-to-face off-site (outside the art firm), and WhatsApp voice-note interviews, whereas the South African study employed online Teams-based interviews only due to the geographical constraints of interviewing graphic designers from all over the country. Markle et al. (2011) justified the usage of WhatsApp voice-note interviews, asserting that technological breakthroughs have paved the way for novel ways to collect, analyse, or present data with more substantial authenticity. Patton (2002) also emphasises that technology is the bedrock for creativity and may improve the quality of data gathering. Technological advancement is, therefore, tied to methodological modification in research (Edwards et al., 2020) and lessens the burden inherent in traditional approaches. There were a lot of differences in terms of feedback between these three methods of conducting an interview. The feedback from the onsite interview was supported by using the items and equipment in the working environment to explain responses from interviewees. On the other hand, the input from the off-site interviews was full of narrations that attempted to paint a picture of items used at the workplace for us to understand.
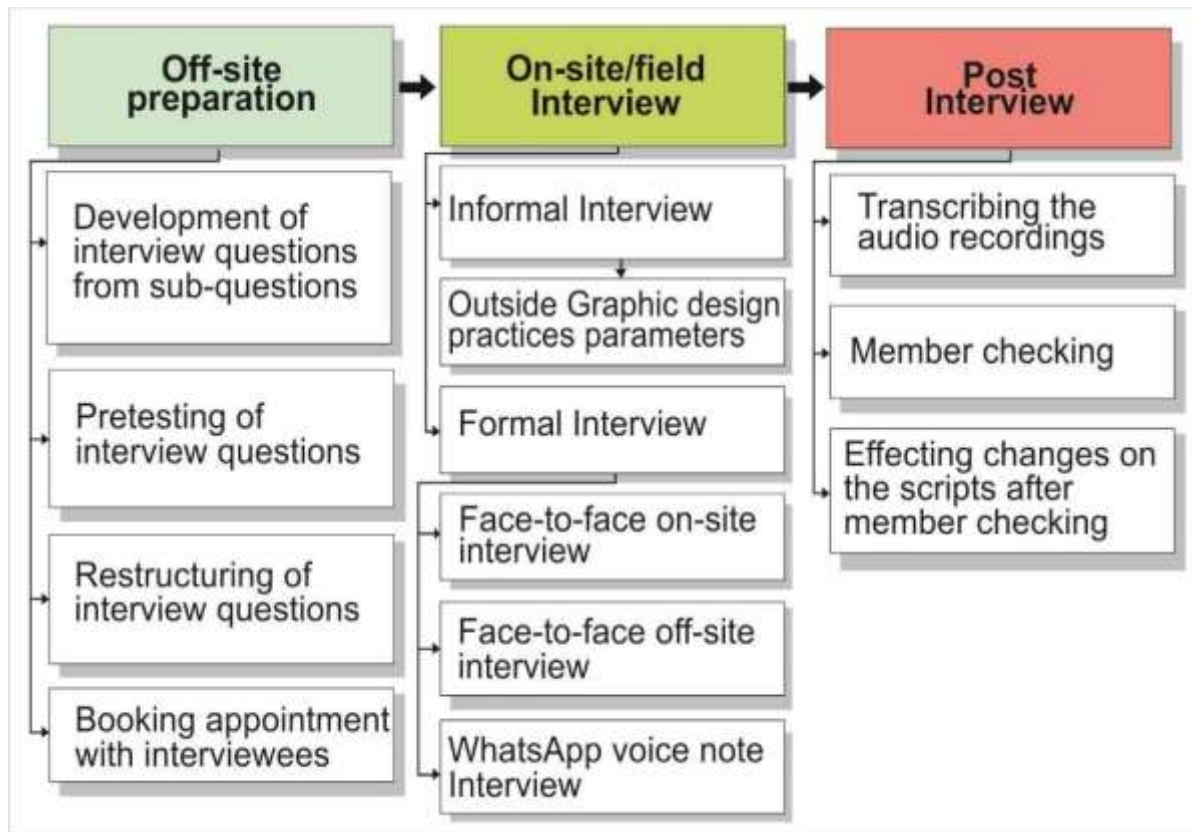
Figure 1: Interview processes

4. Results and discussion

The facets of the motivations were passion-driven, client satisfaction-driven, publicity-driven and economically driven. The highest reoccurrence in the dataset was the passion-driven motivations. Thus, most graphic designers' engagements in graphic design practices are passion-driven. The passion-driven finding is supported by Santoro (2013:20), who affirms that passion is a necessity because of how graphic design is rapidly evolving, making it a challenging and competitive space. Santoro (2013:20) adds that passion, though a necessity, is not an absolute and must be fuelled by creativity. These motivations serve as driving forces for graphic designers and are likely to trigger how they receive and consider the need for environmental sustainability, as captured in Figure 2. The designers explained these motivations within the context of their practices and also referred to education as a key factor in nurturing their motivations.
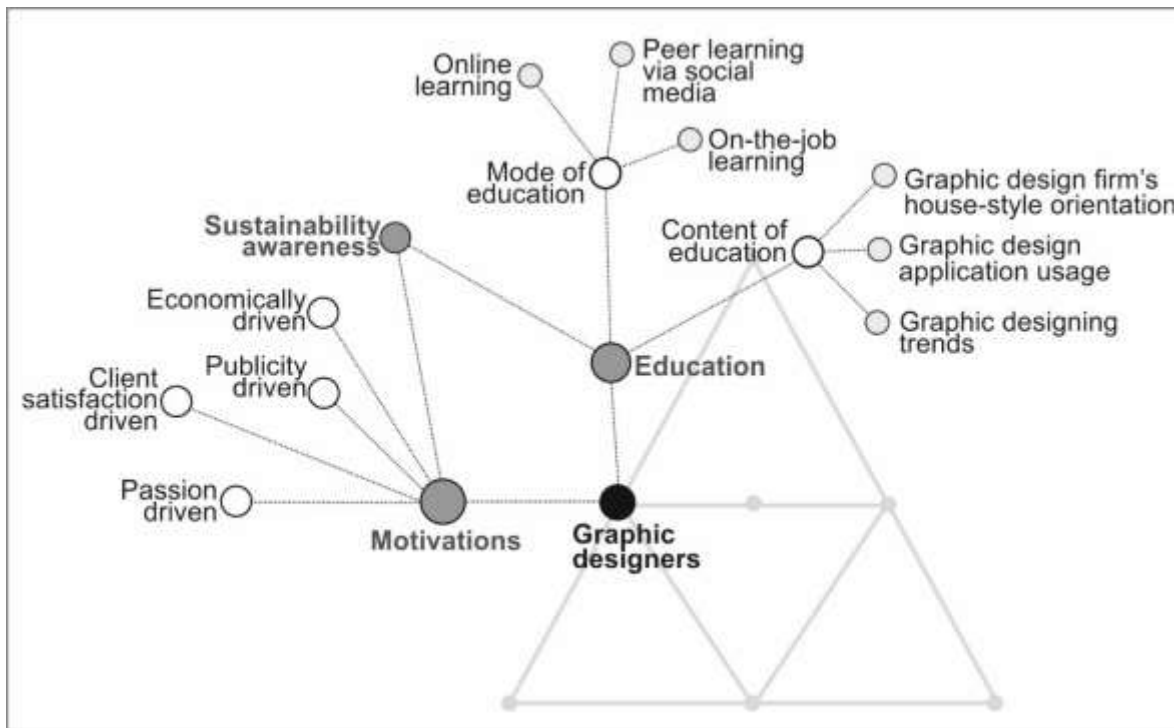
Figure 2: Graphic Designers' Education and its effects on their Motivations

4.1. Passion-Driven Motivations.

In the context of passion, the graphic designers shared that engaging in graphic design practices was driven by their love for the profession. One Ghanaian interviewee shared that art has been his favourite profession since childhood, and the fact that it also helps meet his daily needs makes it even more exciting for him. Another Ghanaian participant added that design has become a form of entanglement for her and that designing is what she loves. Another also said that he found the design to be so interesting. Hence, he left his courses to study graphic design in school, ensuring that his love for the profession would position him well in society and the graphic design industry. One designer also said that her motivation is that he just wants to produce new ideas and explore further to see how far her creativity will take her, driven by her love for what she does. In South Africa, one designer equated "design for good" with the idea of environmental consideration and sustainability: *"[Sustainability] it's removed. I don't know how to fully answer that one, but I think it's removed [from the design process]... sustainability is like for the environment, right? Is it that I am using less electricity or... no. If my paper's out, I buy everything at the store."* Furthering the account of paasion as a motivation many of the graphic designers expressed that their passion for art and design is from infancy, describing a natural and instinctive connection to creativity that shaped their personal and educational journeys; they often recalled early experiences of being fascinated by colour, forms, and artistic expression, which later translated into a decision to study art or graphic design in school, even when financial or social circumstances posed challenges; for example, one designer mentioned how a lack of family financial support didn't stop them from choosing a path in the arts, driven by pure love for the field; another shifted from a business class to a visual art class after discovering the power of design and becoming inspired by those who created such work; these experiences illustrate that for many, the choice to become a designer was not imposed externally but born from an inner passion and curiosity that grew stronger over time.

A recurring theme among the participants was their emotional and even spiritual connection to design, with some seeing their talent as a divine gift and others viewing their work as a form of service to others rather than merely a job; one designer explained that while others use design to make money, their motivation comes from the joy of helping people through their work; this sense of purpose and fulfilment highlights a deeper layer to their professional identity, where design becomes a means of expressing care, empathy, and meaning; they spoke of design as something that brings delight and peace, where the act of creation is tied closely to personal values and beliefs; such insights reveal that for many, the motivation behind designing goes far beyond aesthetics or profit—it reflects a heartfelt desire to use their talents meaningfully.

Participants frequently highlighted their fascination with colours, stating that understanding and using colour effectively is central to successful graphic design; they saw colour not just as a visual element, but as an emotional and communicative tool that brings their ideas to life; one participant specifically mentioned that without an understanding of colour, graphic design cannot succeed, emphasizing the importance of visual literacy; this deep engagement with the visual language of design

indicates a high level of sensitivity and intentionality in their creative processes; they spoke of being inspired by nature and "creation" itself, with one designer noting that good design triggers something within them emotionally, reinforcing the idea that visual elements are more than just technical—they are spiritual and psychological catalysts.

4.2. Client-Driven Motivations.

In the context of client satisfaction, some graphic designers expressed that the motive for engaging in design is to get money to take care of their needs and those of their families by ensuring that they meet their clients' demands. Designers aiming to meet clients' demands believe that design is excellent, but the most relevant thing is ensuring that whatever they design will make an impact on their clients. Therefore, they said they would do everything possible to meet their clients' specifications. One graphic designer shared that her motivation is related to helping clients solve their communication design problems for their products and promotions. In the trajectory of publicity-driven motivation, it was made known that some are emotionally satisfied when they see their work used by clients for different purposes.

Many graphic designers also expressed that their motivation goes beyond financial gain or pleasing their superiors; they are primarily driven by the satisfaction of helping clients, and had these comments to share. One designer shared that they focus entirely on the client's needs, regardless of appearance or the financial value of the job. They take time to explain options clearly, offering cost-effective solutions that maintain both functionality and aesthetic value. For example, when a client requested 100 poster copies, the designer suggested reducing the quantity to stay within budget, which the client appreciated. The positive feedback and satisfaction from the client gave the designer a sense of purpose. Another designer echoed this sentiment, emphasising that their greatest motivation comes from helping clients solve their design problems and knowing that clients rely on their work to promote their products. This sense of responsibility and impact reinforces their commitment to the design profession. For them, graphic design becomes a service rooted in empathy and trust.

4.3. Publicity-Driven Motivations.

Beyond client relationships, the public visibility of their work also serves as a strong motivator for many designers. One designer noted how the simple act of seeing their design displayed in public spaces, helping others, is enough to fuel their passion each time they begin a new project. This visibility allows them to envision the result and its effect on audiences, which in turn pushes them to give their best creatively. The connection between personal effort and public influence creates a cycle of inspiration, where each completed work becomes a source of pride and a reminder of their purpose. Another designer highlighted how this public presence reinforces the sense of relevance and contribution to society. Their motivation increases when they imagine how a simple design could influence perception or behavior. For many, their creative process begins not just with a brief, but with a vision of the design making an impact. This illustrates how visibility and purpose often go hand in hand in sustaining creative drive.

One designer with over a decade of experience shared how their motivation stems from the excitement of encountering their work in everyday life. Whether in newspapers, magazines, or on billboards, seeing their designs featured in various media brings a sense of fulfilment and pride. The joy of contributing to visual communication and national promotion through advertising gives their work broader meaning. This designer expressed deep satisfaction knowing that their craft plays a role in the country's economic development. Their comment reflects how design can be more than a creative task it can be a contribution to society at large. Each published or displayed work becomes evidence of their impact and influence. As a result, their passion is continually reignited by these encounters in the public space. It's this blend of personal excitement and societal contribution that keeps them motivated year after year.

4.4. Economic-Driven Motivations.

Regarding economically driven motivations, some graphic designers made it known that they were not driven by passion, publicity excitement, or client interest because they have children they need to cater to, and therefore, making money from graphic designing to take care of their families was the priority. They also added that apart from meeting family needs, the financial sustainability of their firm is critical. Therefore, they will leave no stone unturned to get every project executed to ensure that their companies make profits at the end of the day. Regarding environmental sustainability, most graphic designers made it known that though they were aware of the need to consider ecological sustainability, it was not a pressing issue since most of the materials used for their reproduction were choices made by the clients. Apart from that, they added that they did not even want to suggest eco-materials since the materials were not even available and would even prolong their delivery deadlines if they were to consider environmental sustainability, which could eventually affect the economic viability of their business. Most graphic designers also did not see the need to consider environmental sustainability in the context of eco-material usage since all the waste papers and cards were recycled or upcycled. Others motivated by passion in their engagement in graphic design shared that they were only interested in graphic design and did not want to engage in any other issue that was not graphics-related.

4.5. Education Effect on Motivations.

Education also played a key role in nurturing motivations, as many participants tailored their academic paths specifically around design for economic and social benefits. Hence, enrolling in secondary schools and professional institutions to further their skills and knowledge was done with the focus on benefiting economically based on the mentors' lives and the kind of orientation they received. One designer noted that every stage of their pursuit of higher education was focused on using acquired skills to make money. The desire to make it in life fueled their deliberate commitment to mastering their craft; even those who did not begin in the arts eventually transitioned once they discovered their passion and the fact that they make a living from it, illustrating the transformative impact of personal interest fueled by education. Education is not just a requirement, but a vehicle through which they could refine and elevate their creative potential; their stories reflect a consistent pattern: when passion meets opportunity and education, a strong foundation for professional design practice is established.

4.6. Graphic designers' motivations and their likely effect on sustainability considerations.

The motivations behind graphic design practice, as revealed in the findings, are strongly rooted in personal passion, economic necessity, and a desire for public recognition. Passion-driven motivations were the most dominant among participants, with many graphic designers citing love for the craft as the foundation of their creative journey. This aligns with Santoro's (2013) assertion that passion is essential in a fast-evolving and competitive design space. Others expressed economically driven motivations, highlighting the role of design as a livelihood and a means of financial stability. Publicity also emerged as a significant motivator—designers found joy and validation when their work appeared in public domains, such as newspapers or billboards, which reinforced their sense of relevance and contribution. These motivations, while important in sustaining practice and creativity, primarily centre around the self, clients, and professional survival rather than wider societal or environmental concerns.

Despite the strong presence of passion, economic, and publicity-based motivations, the findings indicate a significant disconnect between these driving forces and the goal of sustainability. Although graphic designers demonstrated creativity and a willingness to evolve technologically through diverse modes of education, including online learning, social media, and on-the-job training, the actual content of their education lacked focus on sustainability. Many had not heard of sustainability in the context of graphic design, yet traces of awareness were present. This awareness was not curriculum-driven but rooted in personal and professional ethics derived through self-education. As Mietkiewicz (2016) explains, ethics shaped by cultural, religious, or professional influences can guide a designer's choices, including sustainability-related decisions. However, ethical motivations often clash with economic realities; designers may compromise on standards or accept ethically questionable jobs due to market competition and financial pressure. In such an environment, sustainability becomes a secondary consideration.

This ethical tension reveals why the current motivations for graphic design cannot fully align with sustainability. While passion fuels creativity, and economic and publicity-driven goals sustain careers, they do not inherently prioritise sustainable practices. Sustainability in design is a complex issue requiring intentionality, often in conflict with client demands or financial survival. Although some designers attempt to navigate this by advising clients or leaning on ethical standards, these approaches are often limited and inconsistent, especially without institutional or educational support. For sustainability to truly take root in graphic design practice, it must be mainstreamed through formal education, professional guidelines, and reinforced ethical standards. Until then, the existing motivational framework, though rich in creativity and personal drive, lacks the structural support necessary to consistently integrate sustainability into everyday graphic design practices.

4.7. Discussions on motivations and environmental sustainability considerations through the lens of Maslow's Theory of Needs

The research aimed to explore the motivations of graphic designers to understand their likely effects on their consideration of environmental sustainability. It further attempted to discuss the motivations through the lens of Maslow's Theory of Needs to rationalise graphic designers' non-engagement with ecological sustainability. Previous literature pointed out that graphic designers are concerned about their interests with no interest in sustainability due to designers' value for social concerns, as captured by Benson and Napier (2012). Previous literature also made it clear that the non-engagement of designers in sustainability was due to firms' constraints linked to the policy of serving clients first (Assibey, 2019). These concerns are also reflected in the research findings through the motivations the graphic designers shared as their driving force. The central motivations of the graphic designers were economic gains, which were achieved through the secondary motivation of passion, client satisfaction, and fame from quality work, which the graphic designers used as a competitive edge to attract more clients for economic benefit or profit purposes. The profit-driven motivation made them focus on the essentials of their work, indicating that environmental sustainability has less to do with the communicative relevance of their mandate.

On the flip side of the issue where the waste was also used for other purposes to gain economic benefit, it vindicates the graphic designers who see that nothing in their business goes to waste and contradicts the statement by Dougherty (2008, p. 8) that

graphic design is jam-packed with waste because the waste is not waste but becomes raw materials for other product designers. Therefore, the concept of sustainability in using approved eco-materials and processes should not be imposed on designers since society deals with upcycling and recycling waste. The primary motivation, economic and driven by satisfying clients' communicative, branding and other advertising-inclined purposes, is the conscious consideration of environmental sustainability. While all South African interviewees in our study acknowledged the importance of sustainability in design, echoing Fry's (2010, p. 99) statement that "designers must critically engage with issues of sustainability," only one participant could identify specific practical steps taken in their practice to mitigate environmental impact. This observation suggests that when designers primarily focus on fulfilling lower-level needs such as physiological, safety, security, and social belonging, their motivation to prioritise environmental sustainability may be significantly diminished.

In the context of Maslow's Theory of Needs from a hierarchy perspective, it is clear that the economic factor is the primary motivator that positions graphic designers in the first three stages: physiology, safety–security, and belongingness. These are deficit needs that humans need urgently for survival (Poston, 2009). Maslow (1987) noted that humans naturally climb the Theory of Needs ladder when their basic needs are met. Therefore, until graphic designers meet their basic needs, moving into self-esteem and self-actualisation spaces that may lead to environmental sustainability will be far-fetched until they leapfrog through ethical stands by making environmental consideration an ethical and professional requirement instead of a choice.

5. Conclusions

The lack of consideration of environmental sustainability in graphic design practices is triggered by the core motivations of the graphic designers, which are economic benefits fuelled by the secondary motivations, which are passion, client satisfaction, and visibility for firms' services to keep them economically sound. Designers must acknowledge their integration within a broader ecosystem encompassing fellow designers, stakeholders, and consumers. Collaborative efforts are necessary to develop designs that embody sustainability principles, ethics, and inclusivity. Upcycling and recycling waste materials from graphic design production of design products also gives the graphic designers the will to consider environmental sustainability because nothing goes to waste. In the context of Maslow's Theory of Needs, as most graphic designers in developing worlds stay within the motivational space of physiological and security in the quest to meet their basic human needs, considering environmental sustainability is a voluntary choice.

More so, from a graphic design perspective, ecological sustainability is not primary to their task. Based on our research findings, which demonstrate a lack of conscious consideration for environmental sustainability among graphic designers, we recommend several key actions. Firstly, governments in developing nations should facilitate the importation of eco-friendly printing materials to increase their accessibility. Secondly, design associations should establish awards to recognise and incentivise sustainable graphic design practices, encouraging broader participation. Thirdly, corporate organisations should prioritise environmental sustainability in their design projects by actively demanding it from graphic design practitioners. Finally, government agencies should foster collaboration between government organisations and design experts to advance sustainable design methodologies, develop new skills and knowledge, and encourage professional designers to experiment with new sustainable technologies through incentives and inspirational initiatives.

6. Limitations and future research

The sample size used was small, and therefore, future studies must use a larger population and sample size to give a true reflection of the case from a global perspective. The results cannot be generalized due to the research approach, which was qualitative. Future studies scale up the sample size and employ a quantitative method for the generalization of research results.

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