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Visual Design Aspects in Designing User Interface Applications for SMEs

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Abstract

Malaysia's addition of new markets has benefited immensely from technological advancements in digital marketing. Many small and medium-sized enterprises (SMEs) in Malaysia, on the other hand, continue to cling to old business models in this new era. Although it is recognized that the traditional market is not truly dying, there is widespread anticipation that it will no longer possess the same value. This paper aims to look at the importance of adopting suitable user interface design in the applications and to assist the SMEs in innovating their businesses in a more advanced way by understanding good visual criteria in the user interface.

Keywords: User Interface; Business; Mobile Application; Visual Design

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1.0 Introduction

This study uncovers essential ideas for developing new features that appeal to the target audience. It will also allow the user to gain a basic business management concept while developing a practical application. Moreover, this study indirectly supports new SMEs financially by employing the best features of the mobile app to grow their business to a wider market, assuring an effective and smooth business flow. The outcome shall contribute to the country's economic growth and development to eliminate unemployment and homelessness.

Since corporate applications have a considerably broader scope and are more complicated than consumer applications, enterprise solutions are frequently adapted to the needs of certain job categories. Furthermore, unlike many consumer applications, enterprise applications are built for a specific business domain rather than a single job. Administrators often configure enterprise apps, whereas end users typically configure consumer applications. Employee use of enterprise applications is predictable by employees, but consumer applications are less so. Legacy systems are frequently interconnected with enterprise applications. The current situation necessitates the use of mobile enterprise applications. Streamlining corporate processes and functionality is a big part of what they accomplish. Businesses' reliance on business applications is growing at a rapid rate as remote mobility, and real-time knowledge transfers emerge as new frontiers for organizations. Depending on the platform, enterprise applications can span corporate networks, intranets, or the Internet. They're data-heavy and tailored to the demands of employers and workers at different levels of a company. An enterprise application requires hundreds of different requirements to be stitched together to provide a solution that is both useful and helpful, and enjoyable. However, although it appears to be an easy task, creating an enterprise app is a laborious process, and designers who choose to participate in it should be

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aware of the time and effort it will demand. Businesses profit from digital technologies in a variety of ways, including lower exchange costs due to enhanced and faster data availability, as well as improved and faster communication between employees, service providers, and systems. It can help SMEs integrate into global markets by cutting transportation and border expenses and greatly broadening the area of exchange administrations. Online resources, such as finance (e.g., peer-to-peer lending), training, and enrollment channels, including those given by government administrations, are becoming more widely available. Digitalisation also promotes innovation, as proven by increased access to innovation assets and the ability for businesses to produce more information and analyse their claim operations in greater depth, all of which contribute to faster execution.

Attention should also be given to the increased number of senior persons who use digital technology. The elderly always have difficulty adjusting to new technology and software, to the point that they quit without even trying. It is recognized that it is part of the designer's responsibility to solve an issue or create a new user interface design by putting biases aside, ignoring preconceived notions, and focusing on the consumer. In terms of accessible design, there is a way to advocate for various people's abilities while also emphasizing the true value of inclusive design to stakeholders.

The foundation of interactive user interface design is a thorough grasp of the needs of people or users and how they interact with it regularly. Learning what the users want to do is an excellent place to start when creating an interface. The developer will be able to relate the user goals to the design execution by providing appropriate questions or surveys. Empirical discovery is a typical method of obtaining useful knowledge about what a user requires. Qualitative research, such as interviews, will provide a deeper connection and understanding of audience expectations, terminology, and how users think about their job motivation, as well as numerical validation or disqualification for quantitative findings. Knowing the kind of users who will be using the design is critical since it will provide direction for developing a successful mobile app (Tidwell, J. 2020).

2.0 Literature Review

Malaysia's contribution to new markets has tremendously advanced due to technology adoption in digital marketing among small and mid-size firms (SMEs). However, many SMEs in Malaysia continue to rely on conventional markets that appear to be obsolete in this new era. Although it is accepted that the traditional market is not truly dying, there is widespread anticipation that it will no longer hold the same value as it once did. This paper focuses on adopting technology by Malaysian SMEs and how it can help them manage their businesses by considering suitable user interface design. Technology is acknowledged as one of the business sectors that has influenced the economy since the industrial age. It is also thought to provide significant innovation and transformation to various industries (Ramayah, 2009; Nordin et al., 2016). It goes without saying that technical developments enable significant and efficient manufacturing, lowering business capital while expanding consumer supply. One way for poorer countries to catch up with rich countries is through technological diffusion or the adoption of advanced technology produced in high-income countries by low-income ones.

According to the Department of Statistics Malaysia, SMEs are a significant contributor to Malaysia's Gross Domestic Product (GDP) and a key source of job creation. SMEs help people better their living conditions and wages by marketing 5.7 million employment opportunities in Malaysia. "The commitment of SMEs to GDP development would be highly important for Malaysia's transformation to a high-income economy," said Anabel Gonzalez, Senior Chief of the Bank Group's Exchange & Competitiveness Worldwide Hones (World Bank, 2016). This can be accomplished by facilitating technical learning, avoiding potential economic losses, and exchanging knowledge and innovation that would otherwise allow us to achieve the same level of success as industrialized nations.

Most Malaysian SME entrepreneurs, on the other hand, cannot sustain their enterprises over time, with the majority falling within the first five years (Piera, 2016). This will happen if local SMEs are not prepared to accept new technologies in their business management. The increased rate of failure among SMEs has motivated this examination of reporting and gathering difficulties from a variety of sources to provide a complete picture of SME issues, which will aid the researcher in developing a more effective way of conducting business. The scope of this study is confined to SMEs in the local area that is interested in technology adoption at all ages, beginning with young people. We can tell immediately that the study's scope has limited the sample size that will be employed. It also imposed restrictions by limiting representation to SMEs registered with the Malaysian Companies Commission (CCM) As long as the responder is a Malaysian SME, this study will target both genders. It is a precise statement of how the outcome measure will be researched; the research does not cover any other methods, and their exclusion may limit the study. Understanding a user-friendly application's interface design accurately anticipates the user's needs and serves the purpose accordingly. While these characteristics were traditionally associated with consumer applications, designers and developers working in the SMEs domain are also making rapid progress.

A number of variables cause the challenges of expanding a firm among local SMEs. Because of poor strategic planning and a lack of administrative abilities, most SMEs fail to survive (Kaur, 2017). According to The News, an entrepreneur's lack of business preparedness is the primary cause of disappointment or failure to expand beyond a specific number of trucks. Malaysian SMEs use not only minimal technology but also lack the ability to determine their actual technological requirements. (Abdullah, N. H., 2009). As a result, the failure rate among SMEs is rising, owing to their lack of understanding of the need for successful business planning using advanced technology before opening their doors. There is a significant impact on how users control and operate mobile phones in terms of user interface design. With the advancement of cellular technology, the connection between humans and mobile phones have become increasingly complex (Yajun Liu, 2016). According to Tarute's research, poor usability is the most important factor to consider when deciding whether to decline, not use, or delete a mobile application from a device (Deloitte, 2012). Inadequate functionality could have a role in various decision-making processes, including selecting inappropriate features in mobile apps. Despite certain parallels, there are considerable variations between the ecosystems of websites and those of mobile applications. The technological elements of smartphones, such as display size, memory space, display style, symbols used, and mobile capability, all play a role in mobile apps.

Aside from that, smartphones in today's world feature user interfaces that are geared toward young people rather than the elderly. It's because the elderly are sometimes seen as technophobes, making it difficult for them to accept some of the more advanced cell phone services (Chui Yin Wong, 2018). Furthermore, most cellphones and certain mobile apps are not designed to meet the needs and expectations of senior citizens. As a result, they cannot fully utilize their functions and services. People must first comprehend how to use certain mobile phone features and functions (such as display, phone size, buttons, color, and brightness) (Chui Yin Wong, 2018).

3.0 Methodology

There were 103 people that took part in the research. The participants are from small and medium-sized enterprises (SMEs) registered with the Malaysian Companies Commission (CCM). As a result of this non-probability sampling process, a logical assumption can be made about who the agents of the population are. In addition, the researcher uses visual analysis methods to collect data through the study and analyze the visual criteria of existing mobile applications. It is possible to discover multiple layers of significance while using this strategy.

4.0 Findings and Analysis

To achieve business expansion, SMEs must integrate technology into their business management, according to the research. Aside from that, it's vital to pay attention to how a mobile application's user experience is regarded, including design elements, functionality, and navigation. All of these variables contribute to a mobile application's success or failure. This result is crucial in this study since it allows the researcher to judge whether or not the research objective was met.

A few logo examples were chosen from various internet sources, such as Dribbble and Behance, as shown in Figure 1. The color palette for this wordmark logo is almost entirely made up of solid colors, which look more monochromatic, bold, and straightforward in compositions with only one or two colors. They also use a flat and monoline design, which provides a pared down, a minimal appearance that can be transformed into a complex or simple symbol as desired. This minimalist logo's sans serif typeface is also bolder and more striking than the serif typeface. Furthermore, it is clean and simple, making it suitable for various industries and appealing in various mediums. This logo's usability is aimed at simplicity and objectivity, with a primary focus on clarity. Its primary goal is to draw attention to what is important while making the user easily remembered. The execution of the logo will be the primary focus, and users will be unaffected by anything else and will find it easy to grasp. It can also help to reduce page loading times, which is important for SEO and user experience.

Figure 2 shows the user interface of a current mobile app called Yezza. It's a commercial mobile app that resembles the topic of this study. The buttons on the Yezza application are solid colours that create a color contrast ratio that can help with accessibility or visibility. People with impaired vision, such as the elderly, can identify it more easily. Yezza apps also use minimalist iconography and sans serif typefaces to give users minimalism, convenience, and personalization. Moreover, the Yezza program allows users to record information quickly. This way, users may see their daily operations on the main page. The user can record their daily activities without navigating through extensive menus. Other features include switching between different company accounts using a drop-down menu, making it easier to handle multiple business types without signing out and back in. The findings demonstrate that SMEs must use technology to run their businesses if they want to grow. Aside from that, the user experience of a mobile application is crucial, including design elements, functionality, and navigation, as these, all contribute to the app's success or failure. This study is an important outcome since it allows the researcher to assess whether the research objective was achieved. The majority of survey respondents stated that technology has a beneficial impact on their daily business operations. Other factors add to their aversion to using mobile devices for business. The visual analysis also helps the researcher design a successful mobile application by assigning keywords to the mobile application execution. This study's objectives were met via an online survey and visual analysis.

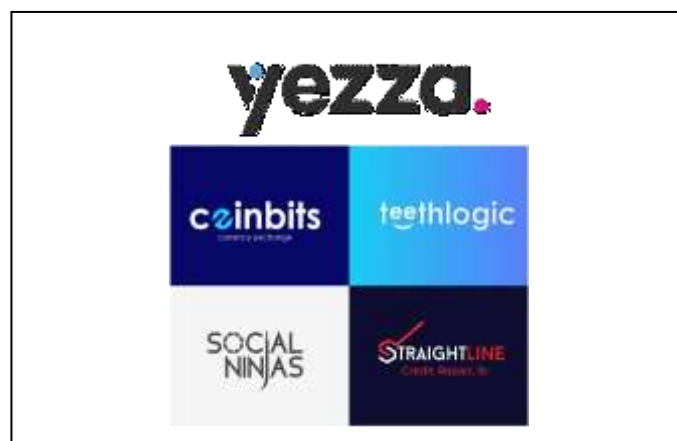


Fig. 1: Logo Examples
(Source: Dribble)

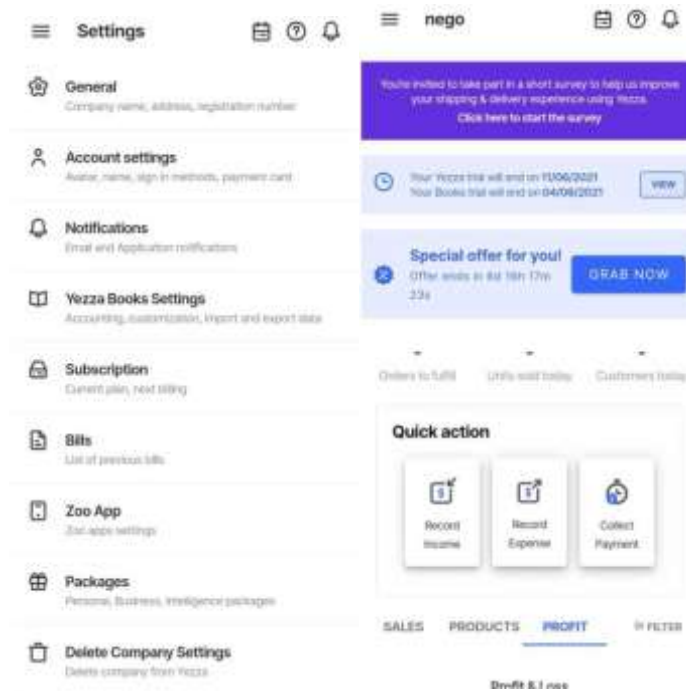


Fig. 2. Yezza App
(Source: Yezza Mobile Application)

5.0 Conclusion

This study aims to give a paradigm and motivation for future research into the use of technology by small businesses. Many difficulties associated with developing a successful user interface are exacerbated on mobile devices. This is due to the limited available screen space. The discussion has centered on the experience and readiness of SMEs, as well as the primary benefits of integrating technology into their business operations and the ideal mobile application that should be developed to achieve success. It might be said that technology is necessary for SMEs to gain a competitive advantage both locally and internationally. This means that SMEs in their community must be informed of their industry's technological requirements. Adopting new technologies can benefit the environment while simultaneously increasing the productivity and profitability of SMEs, ensuring their long-term viability.

Effective mobile app usability and user experience have a positive and significant relationship with SMEs' readiness to adopt new technologies in their operations and commercial performance. The keywords in establishing a good user interface design would be minimalism, organization, elegance, and sophistication. The user interface, the part of the application with which users frequently interact, allows users to experience the application directly. Understanding the user experiences from the interaction between the users and the interface is critical for improving the users' appraisal and satisfaction with the system. On the other hand, mobile devices differ significantly from personal computers due to small screen size, mobility, and user's short-term memory. The existing scales cannot be directly applied to the mobile application interface. The user interface is the most contacted and conversed part of a mobile application. Users' perceptions of the user interface can influence their perceptions of the entire application.

Strong user interface design is even more important in the SMEs mobile application space. Enterprise software is more complex, has a larger user base, and more critical features than most consumer applications. As a result, it's even more critical that the user interface design is clean and simple to understand. Colors, typography, buttons, navigation, and other elements should be well articulated and visually appealing. They should feel consistent across screens and features, putting the user at ease as they navigate the entire experience. In addition to a pleasant user experience, user interface design creates a distinctive visual identity for the products, fostering customer loyalty and increasing brand awareness. The corporate application is more than just a company logo in the navigation bar. It's the overall appearance, feel, and functionality of the project. This is especially true for platforms that offer a wide range of services and products. A good user interface design may be used in various goods and applications, making it simple for users to move between them. With user research support, a well-designed SMEs mobile application addresses real-world issues for actual users. Existing application needs to improve

to meet user behavior, user requirements and preferences, or new application's pain points. Employees, users, and organizations all benefit from a well-designed solution.

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