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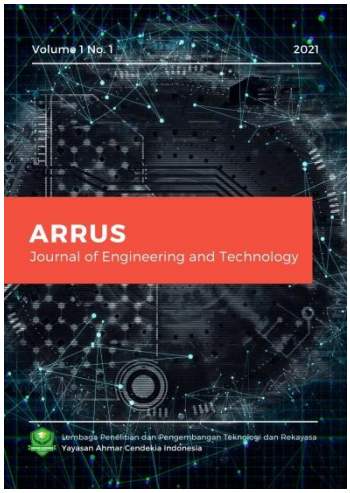

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RESEARCH ARTICLE / REVIEW ARTICLE

Development of a Menu Introduction Application for Domino's Pizza Serang Using Construct 2

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Abstract: The development of information technology has had a significant impact on various aspects of life, including the culinary field. Domino's Pizza, as one of the international fast-food restaurant franchises, offers a wide variety of menu items that need to be introduced effectively to customers. However, the menu introduction media used so far is still conventional, such as brochures and verbal explanations, which are considered less engaging and interactive. This study aims to develop a menu introduction application for Domino's Pizza Serang using Construct 2 as an interactive multimedia-based tool. The development method used in this study is the Multimedia Development Life Cycle (MDLC), which consists of the stages: concept, design, material collecting, assembly, testing, and distribution. The application includes several main features, such as the main menu, menu list, and company profile. Application testing was conducted by distributing questionnaires to 10 respondents using the Likert scale. The evaluation results showed that the application received an average user satisfaction score of 4.29 out of 5, indicating that the application is considered good and suitable for use as a promotional and product information medium. Therefore, this application can be an effective solution in introducing Domino's Pizza products in an engaging and efficient manner.

Keywords: Interactive Application, Domino's Pizza, Construct 2, Menu Introduction, MDLC

1. Introduction

The development of information technology has now penetrated various aspects of human life, including education, commerce, communication, and public services. Digital transformation has brought significant changes in how people work, interact, and access information. Software-based technology and applications have become essential elements in delivering information quickly and interactively. Interactive multimedia software, in particular, has been widely used across various fields to convey content or information more attractively and efficiently. The use of technology also enables companies and institutions to present data and information visually, making it easier for users to understand (Yulianto, 2022).

On the other hand, this technological development has also triggered increasingly fierce business competition, especially in the food and beverage (culinary) sector. Companies are required to

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continually innovate not only in terms of products but also in services and promotional methods. In today's modern business world, the use of technology is key to attracting customer attention, building loyalty, and maintaining a company's existence in the midst of competitive rivalry. Branding strategies, appealing product visualization, and ease of product introduction are critical factors in addressing current business competition (Hidayat, 2023).

Domino's Pizza, as one of the international fast-food franchise brands, offers a variety of appealing menu items and continues to innovate according to market preferences. Menus such as Cheese Mania, Meatzza, American Classic Cheeseburger, Extravaganzza, and others are featured as flagship products offered to customers. Each variant has its own unique characteristics in terms of taste, toppings, and ingredient composition. In the context of product education and promotion, it is important for the restaurant to be able to introduce these menu items more effectively, especially to new customers who may not be familiar with all available options (Prasetya, 2021).

However, in practice, the introduction of Domino's Pizza menu items to customers is often still conventional, such as through brochures or verbal explanations from staff. This is considered less interactive and does not provide customers with a maximum visual experience. Therefore, there is a need for an interactive application that can help users become familiar with the menus in a more enjoyable and easily accessible manner. Such an application can be integrated into restaurant services or used as an educational and promotional tool via digital devices (Fadillah, 2022).

Construct 2 is one of the popular and user-friendly platforms for developing interactive multimedia-based applications, particularly for educational and product introduction purposes. This platform is based on HTML5 and allows developers to create interactive applications without requiring advanced programming skills. Construct 2 offers drag-and-drop features and excellent visual support, making it suitable for developing learning media or product introduction applications as needed by Domino's Pizza (Saputra, 2023).

The object of this research is Domino's Pizza Serang, a popular pizza restaurant franchise with many customers from various demographics. Domino's Pizza Serang is part of the expanding Domino's Indonesia network and requires a digital approach to introducing its products. With a strategic location and a diverse customer base, Domino's Pizza Serang is an ideal site for implementing digital media as a tool for introducing its menu items.

However, several problems were found in the field, such as the limited availability of visual media at the restaurant, lack of detailed menu information in physical brochures, and the absence of interactive media that customers can use to explore the various available menu options. This leads to delays in menu selection, confusion among new customers, and limitations in promoting flagship products effectively.

Based on the aforementioned background, the researcher is interested in developing a menu introduction application for Domino's Pizza using Construct 2. The reason for choosing this topic is to contribute to making it easier for customers to explore the various available menus in an interactive, attractive, and user-friendly way. Moreover, this study is expected to be a digital innovation that supports service and promotion efforts at Domino's Pizza Serang in this rapidly evolving era of digitalization.

2. Literature Review

2.1. Definition of Domino's Pizza

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Domino's Pizza is one of the largest pizza restaurant chains in the world, originating from the United States. Established in 1960, Domino's Pizza has grown rapidly and now operates thousands of outlets in more than 80 countries. In Indonesia, Domino's Pizza is a prominent fast-food restaurant offering a variety of attractive menu options and fast service, available for dine-in, takeaway, and delivery. Domino's is also known for its digital innovations, including online ordering applications and product introduction via interactive platforms. The Domino's Pizza outlet located on Ahmad Yani Street, Serang, is one of the active branches that provides a wide range of menu variants such as American All Star, Tasty Spicy Chicken, and others, available in various flavors and sizes (Domino's Pizza Indonesia, 2023).

2.2. Definition of Menus

In the context of a restaurant, a menu refers to a list of food and beverages offered to customers. According to Nugroho (2020), the menu is an essential element in the culinary industry as it serves as a communication medium between food providers and consumers. Menus not only display food names but also include descriptions, main ingredients, prices, and product visuals. In information systems or digital applications, menus can be presented in an interactive format to help consumers recognize and choose products more easily. A well-presented menu plays a crucial role in consumer decision-making, especially when complemented by attractive visuals and complete information about each offered product.

2.3. Definition of Construct 2

Construct 2 is an HTML5-based game engine developed by Scirra Ltd. It allows developers to create interactive applications or 2D games without requiring advanced programming skills. According to Setiawan (2021), Construct 2 employs a drag-and-drop interface and event-based logic, making it easier for users to design interaction flows and animations. Beyond gaming, Construct 2 is widely used to develop interactive learning media, simulations, and educational applications. Due to its ability to deliver dynamic visual displays, Construct 2 is well-suited for building interactive menu introduction applications, such as the one proposed for the Domino's Pizza project.

2.4. Relevant Studies

Several previous studies provide a strong foundation for the development of a product introduction application based on interactive multimedia. A study by Wulandari and Akbar (2021) demonstrated that Construct 2 is effectively used in developing interactive educational media, particularly in fruit recognition games for early childhood. The research proved that visually appealing and interactive displays can enhance learning interest and users' understanding of the presented content—which, in this context, can be adapted for menu introduction purposes.

Furthermore, Nugroho (2020) developed a menu introduction application for a restaurant using Android, which displayed detailed product information including images, descriptions, and prices. Evaluation results showed that the application significantly improved customer satisfaction in accessing digital product information. Although developed on a different platform, the essence of this research aligns with the goal of the Domino's Pizza menu introduction application—to deliver product information in an engaging and accessible manner.

Ramadhan and Yulianto (2019) also contributed by creating an interactive promotional media using Construct 2 for local culinary products. The application allowed users to explore various types of food with interactive features. User feedback indicated that a communicative visual display and ease of navigation were key factors in the application's success in promoting food products.

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Another study by Rahayu (2021) emphasized that the application of interactive multimedia for product promotion in culinary MSMEs (Micro, Small, and Medium Enterprises) can increase customer engagement and interest. Digital product visualization provides a more realistic and informative experience for potential buyers, especially in understanding product variations.

Astuti and Lestari (2022) also supported the use of game engines in developing educational and promotional applications. Their study showed that applications based on interactive visuals are highly effective in conveying information attractively and efficiently, including in the culinary sector.

Based on these studies, it can be concluded that the use of Construct 2 in developing the Domino's Pizza menu introduction application is a relevant and promising approach to enhancing the quality of digital product information delivery in a visually appealing and efficient manner.

3. Research Method and Materials

3.1. Type and Approach of Research

This research is categorized as applied research with a developmental (R&D) approach. The purpose of this study is to develop a multimedia-based interactive application using Construct 2 to introduce menu items at Domino's Pizza Serang. The approach used focuses on system design, implementation, and testing using the MDLC (Multimedia Development Life Cycle) method to produce a practical and applicable digital product.

3.2. Research Location and Period

The research was conducted at Domino's Pizza outlet located on Jalan Ahmad Yani, Serang, Banten, Indonesia. The development process was carried out in a laboratory setting and field-tested directly at the location.

The research period took place from March 2025 to July 2025, including observation, application design, development, validation, and testing phases.

3.3. MDLC Development Method

The development of the application in this study adopts the Multimedia Development Life Cycle (MDLC) model as proposed by Luther. The MDLC consists of six sequential stages:

(1). Concept – Identification of needs and objectives.
(2). Design – Planning of interface, navigation, and interaction structure.
(3). Material Collecting – Gathering visual, textual, and audio assets.
(4). Assembly – Integration of materials into Construct 2.
(5). Testing – Conducting trials and evaluations with users.
(6). Distribution – Deployment and implementation of the final product.

This method was chosen because of its suitability for multimedia product development, especially for educational and promotional applications.

3.4. Tools and Materials

Table 1. Materials

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No	Tools/Materials	Description
1	Laptop/PC	Used as the main device for designing, developing, and testing the application using Construct 2.
2	Construct 2 Software	The primary development platform used to build the interactive menu introduction application.
3	Adobe Photoshop	Software utilized to edit menu images, crop assets, and design the application interface.
4	Domino's Pizza Menu Data	The content material including images, names, and descriptions of the menu used as the core input of the application.
5	Internet Connection	Required for accessing references, downloading resources, and conducting remote testing if needed.
6	Smartphone/Tablet	Used as testing devices to simulate real user experience and evaluate app performance on mobile platforms.

3.5. Data Collection Techniques

The data collection in this study used a combination of techniques to ensure the accuracy and relevance of development content:

(1). Observation: Direct observation at the Domino's Pizza Serang outlet to understand menu presentation and customer interaction.
(2). Documentation Study: Reviewing brochures, official website data, and promotional materials of Domino's Pizza.
(3). Interviews: Semi-structured interviews with store staff and customers to gather insights on menu comprehension and user expectations.
(4). Questionnaires: Used during the testing phase to collect user feedback on the application's usability, visual appeal, and effectiveness.

4. Results and Discussion

4.1. Software Specifications

Table 2. Software Specifications

No	Software Name	Function
1	Construct 2	Main tool for building and structuring
2	Adobe Photoshop	Editing and optimizing visual content
3	Audacity	Editing and processing voice narration
4	Web Browsers (Chrome, Edge)	Preview and testing of the web-based virtual tour
5	VLC Media Player	Multimedia compatibility testing
6	FileZilla	Uploading project files to the university's hosting server

4.2. System Specifications

The development and rendering process for the virtual tour application was carried out on a system with the following specifications:

Table 3. System Specifications

Component	System Name	Function
Processor	Intel Core i5 or equivalent	Intel Core i7-11700H
RAM	8 GB	16 GB DDR4
Storage	256 GB SSD	512 GB SSD
VGA/GPU	NVIDIA GTX 1050 or equivalent	NVIDIA RTX 3060
Operating System	Windows 10 or macOS High Sierra	Windows 11 Pro
Monitor Resolution	Minimum 1366×768	1920×1080 Full HD

4.3. Application Usage Guide

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Step 1: Access the Domino`s Pizza Menu`s

Open the Domino`s Pizza Menu`s, then click the "Menu" menu on the main navigation bar.

Figure 1. Access the Domino`s Pizza Menu`s

Step 2: Choose the Menu

Click the "Menu" button to proceed to the page of the Menu`s.

Figure 2. Choose the Menu You Want to View Detail

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Step 3: Select the Menu You Want to Experience

Figure 3. Menu Selected

4.4. User Requirements Testing

To evaluate the level of user satisfaction and the effectiveness of the menu introduction application at Domino's Pizza Serang, the researcher conducted a user test by distributing questionnaires to a number of respondents. The instrument used was a Likert-scale questionnaire consisting of five levels of assessment, as shown below:

Table 4. Score Categories

Score	Category
5	Strongly Agree
4	Agree
3	Somewhat Agree
2	Disagree
1	Strongly Disagree

The questionnaire was distributed to 10 respondents consisting of general users and Domino's Pizza Serang customers. The aspects evaluated in the questionnaire include:

(a). User Interface
(b). Ease of Navigation
(c). Completeness of Menu Information
(d). Application Access Speed
(e). Overall Attractiveness of the Application

After the development of the Menu Introduction Application for Domino's Pizza Serang Using Construct 2 was completed, a trial was conducted involving 10 respondents to obtain feedback. Data collection was carried out through questionnaires using a Likert scale (1–5), which included eight statements regarding visual aspects, functionality, ease of use, and user satisfaction.

Based on the data tabulation results, a total score of 343 was obtained from all respondents' answers, with an average score of 4.29. This value indicates that, in general, users agreed to strongly agreed that the developed application has met expectations in terms of appearance, usability, and functionality.

More specifically, the highest scores were found in statements 5 and 8, namely:

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"This application helps me learn about various Domino's Pizza menu items more easily" with an average score of 4.6.

"I am satisfied with the overall application that has been developed" also with an average score of 4.6.

Meanwhile, the lowest average score was found in statement 4, namely:

"The application runs smoothly without many errors" with an average score of 3.9, indicating that there is still room for improvement in terms of the application's technical performance.

Below is a summary of the average score per statement:

Table 5. Average Score

No	*Statement*	*Mean*
P1	The application display is attractive and aligns with the Domino's brand identity	4.4
P2	The application navigation is easy to use	4.1
P3	The menu information displayed is complete and clear	4.4
P4	The application runs smoothly without many errors	3.9
P5	The application helps me to learn about various Domino's Pizza menu items	4.6
P6	The colors, icons, and layout of the application are visually comfortable	4.0
P7	The application is interesting enough to be reused in the future	4.3
P8	I am satisfied with the overall application that has been developed	4.6

Based on these results, it can be concluded that the application is suitable for use as a menu introduction medium at Domino's Pizza Serang, with several suggestions for improving technical performance to optimize the user experience.

5. Conclusion

Based on the design and testing results, the following conclusions can be drawn:

(1). The Domino's Pizza menu introduction application developed using Construct 2 successfully displays product information in a visual and interactive manner, with an attractive and user-friendly interface.
(2). The main features, such as menu navigation and food image display, function properly and support the educational purpose of the application.
(3). Test results indicate that all core components of the application operate according to the testing scenarios and produce the expected outcomes.
(4). The user interface is designed to be responsive and user-friendly, making it easy for users of various age groups to access the information.
(5). This application can serve as an engaging alternative medium for presenting menu information to customers in a non-transactional manner, and it has the potential to be used in promotional activities, culinary education, or as a digital presentation tool.

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