

# Table of Contents

<b>1.0 Executive Summary.....</b>	2
<b>2.0 Overview.....</b>	4
<b>3.0 Project Play by CW .....</b>	6
3.1 Business Process.....	6
3.2 Problems Faced when Using the Manual System .....	9
3.3 Types of Information System (IS) to be Implemented.....	12
3.4 The Effects of Politics, Cultures and Environments .....	14
<b>4.0 Porter's Five Forces.....</b>	15
<b>5.0 Management Information System (MIS) Plan.....</b>	20
5.1 Supply Chain Management (SCM) .....	20
5.2 Customer Relationship Management (CRM) .....	22
5.3 Human Re sources Management (HRM) .....	25
5.4. Security and Privacy Issues .....	27
5.5 Methods to Build MIS .....	31
5.6 IT Infrastructure Needed .....	35
<b>6.0 Summary .....</b>	40
<b>Reference List .....</b>	41
<b>Appendices .....</b>	45
Appendix A .....	45
Interview Transcript .....	45
Appendix B.....	50
Interview Recording .....	Error! Bookmark not defined.
Appendix C.....	51
Examples of MIS Systems for Project Play By CW to Implement.....	51

# **1.0 Executive Summary**

## **1.1 Overview**

Project Play by CW is an esports entertainment centre with a mission to provide an immersive, inclusive and relaxing environment. It was founded in 2024 and it is located in Bandar Sunway. Project Play by CW caters primarily to a multicultural student demographic from nearby universities. The business offers PC gaming, racing simulators, and PS5 consoles, with future plans to incorporate VR technology. They emphasise customer comfort and engagement.

## **1.2 Business Processes**

Key business processes of Project Play by CW include inventory management and procurement, service delivery, customer feedback, regular maintenance, and employee management. Gaming equipment and drinks are tracked manually and recorded in the Excel sheets, which is error prone and inefficient. Service delivery emphasizes personalized assistance and prepaid systems, while feedback is collected via Google Forms but lacks interactivity. Regular maintenance includes routine hardware and software checks to improve the service quality, and the employee management system fosters a supportive workplace, albeit with a manually managed shift schedule and reward system.

## **1.3 Problems Faced with the Manual System**

Key challenges with the manual systems include inefficiencies in inventory tracking, limited analysis and interaction in feedback collection, and a time-consuming reward system. Human errors in inventory management lead to discrepancies, while feedback analysis is restricted by the limitations of Google Forms. Similarly, manually processing employee rewards is slow and prone to inaccuracies, which can affect morale and productivity as the business scales.

## 1.4 Types of Information Systems (IS) to Be Implemented

To address operational inefficiencies, Project Play by CW is recommended to implement advanced systems:

- Inventory Management System (IMS) to automate real-time tracking of equipment and supplies.
- Customer Relationship Management (CRM) to centralize and enhance customer interactions, feedback, and insights.
- Human Resource Management (HRM) to streamline employee performance tracking, scheduling, and rewards distribution.

These systems aim to improve accuracy, efficiency, and customer satisfaction while supporting scalability.

## 1.5 The Effects of Politics, Cultures and Environments

### Politics

Project Play by CW leverages informal alliances and mentorship to enhance efficiency and service quality. These practices promote collaboration but occasionally lead to tensions over workload inequities. Leadership addresses conflicts through communication, ensuring teamwork and accountability.

### Culture

A welcoming and inclusive culture emphasizes collaboration, learning, and mutual respect. Leadership mentors employees, rewards performance, and fosters a sense of community, making Project Play by CW more than just a gaming center—it's a hub for connection and growth.

### Environment

Internal teamwork and management drive operations, while external factors like regulations, economic shifts, and technology shape strategy. Adapting to trends like VR and esports ensures Project Play by CW stays competitive and relevant.

## 2.0 Overview

Project Play by CW, founded in 2024, is a gaming and entertainment centre. Their mission is to provide a welcoming space where individuals from all walks of life can come together and immerse themselves in the excitement of gaming. According to Mr. Calvin, who is the CEO of Project Play by CW, what they wanted to offer customers was more than just a cybercafe, they aim to be a relaxing environment where people can take a break, connect, and enjoy quality time. Aligning with this vision, Currently, they not only provide a range of gaming options, including PC gaming, racing simulators, and PS5 consoles (Project Play by CW, n.d.), they also offer a comfortable resting area with sofas and dining tables for meals.

According to Mr Calvin, Project Play by CW is actively working to expand its facilities and updating its equipment. In order to stay competitive, they plan to incorporate VR and other exciting features as they continue to evolve their business. They are dedicated to offer a diverse range of entertainment options for their customers.

In terms of membership, Project Play offers a flexible membership system that caters to the needs of its diverse clientele. Memberships are designed to provide access to exclusive benefits, such as discounted rates and priority booking for gaming stations. The membership structure is designed to accommodate both casual visitors and frequent gamers, creating a loyal customer base while also attracting new users.

Project Play by CW is located in Bandar Sunway, which is surrounded by popular universities such as Taylor's, Monash, and Sunway University (Project Play by CW, 2024). They primarily target students, and they successfully attract a diverse group of customers from various nationalities. The multicultural student population creates a dynamic and inclusive atmosphere, where individuals from different backgrounds can come together to enjoy gaming, socialize and relax. Additionally, Mr. Kelvin noted that many nearby cybercafes closed after the pandemic, leaving a gap in the market and reducing competition.

In Project Play by CW, most employees work part-time. The team is built on mutual respect, and the leaders always understand that mistakes are part of the growth process of the young employees. Mr Calvin hopes that they can create a supportive environment where employees can learn and thrive in their professional journey.



Figure 1 - Front View of Front Desk of Project Play By CW

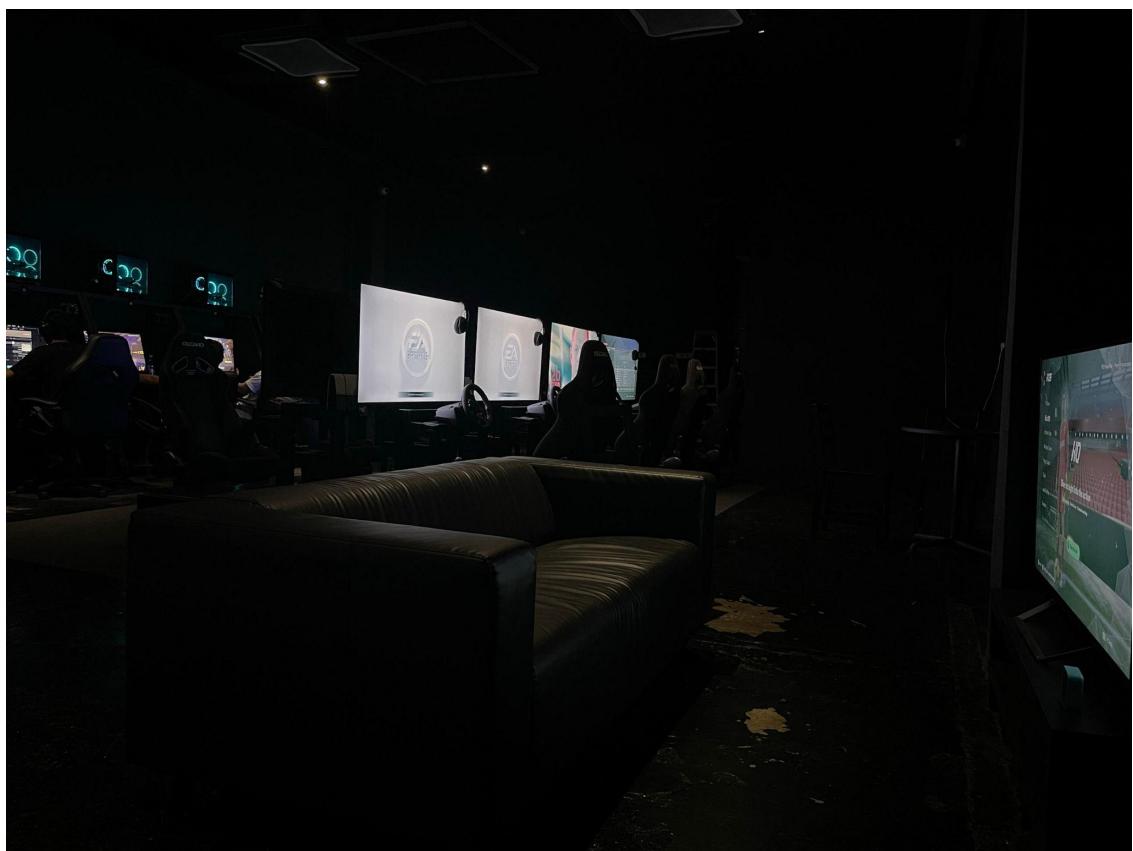


Figure 2 - Interior of Store with Racing Simulator (at the back) and PS5 Console (very front)

# 3.0 Project Play by CW

## 3.1 Business Process

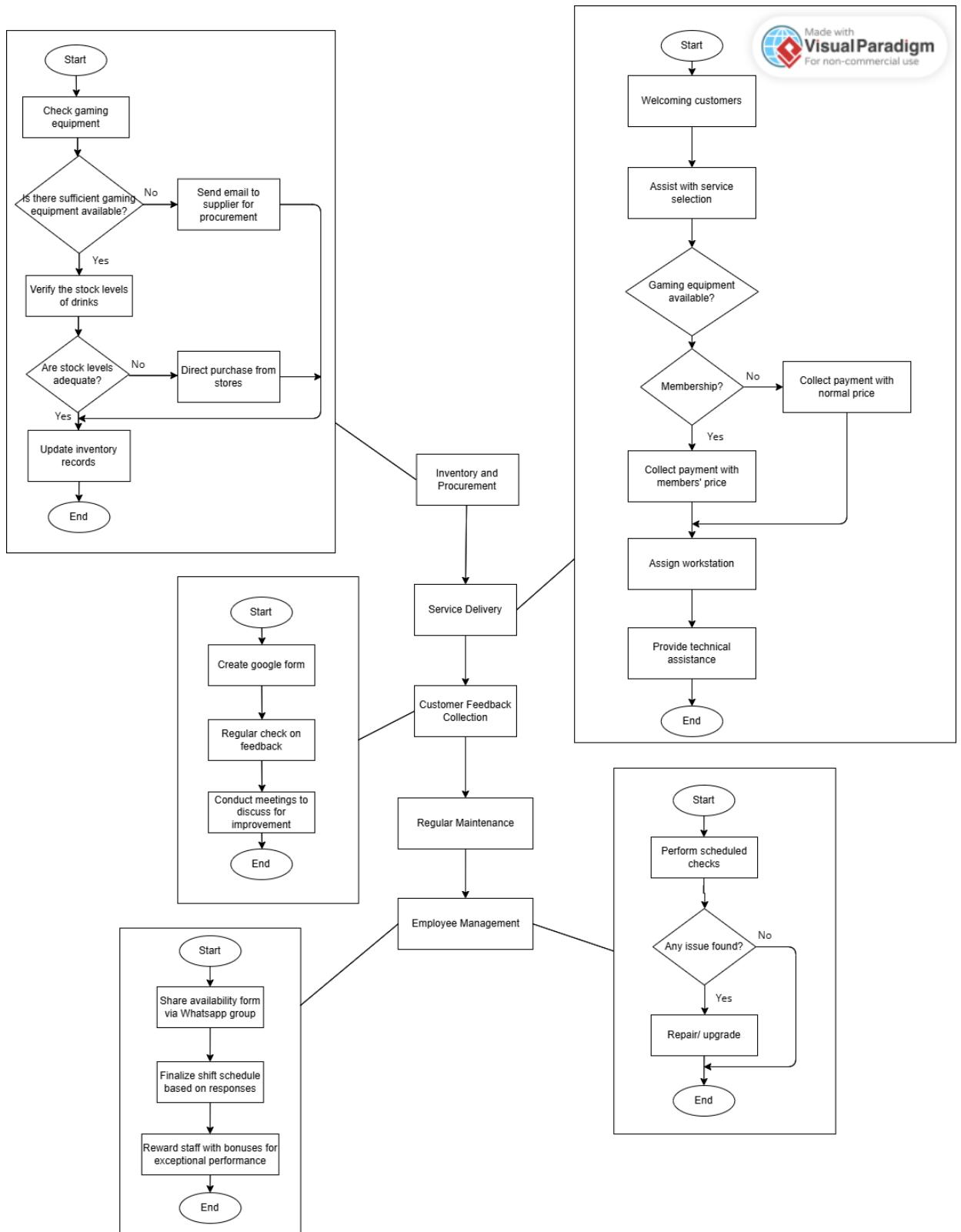


Figure 1 - Key Business Processes of Project Play by CW

### 3.1.1 Inventory and Procurement

Project Play by CW's inventory management system tracks gaming equipment and drinks. The organization uses Excel for this process, which lacks the efficiency of dedicated inventory software. According to Mr. Calvin, the equipment procurement process involves communication through email which may be sufficient currently, but may become inefficient as the business grows. Additionally, the organization conducts daily audits to ensure inventory accuracy. However, manual checks can be prone to human error. While equipment procurement remains straightforward due to infrequent orders, the management of drink supplies requires more attention, as the system does not always capture unpaid items, resulting in occasional inventory problems.

### 3.1.2 Service Delivery

The service delivery process of Project Play by CW begins with welcoming customers. Then, the staff will assist customers in selecting the gaming equipment and check the availability manually. Project Play by CW offers membership options, and the payment is typically made on a prepaid basis. The customers will be assigned a workstation and may receive login credentials for secure access, with systems tracking usage time for accurate billing. Staff offer technical support as needed. Upon completing their session, customers settle payments for any extra services and receive a receipt.

### 3.1.3 Customer Feedback

Collecting customer feedback is an essential process that enables the organization to understand client satisfaction and identify areas for improvement. Regularly analyzing this feedback helps businesses to resolve complaints, and tailor their offerings to meet changing customer needs. Not only that, but positive feedback also serves as a valuable indicator of service success and can be used for marketing purposes. In Project Play by CW, feedback is gathered through direct interactions and via QR codes that link to a Google Form, allowing customers to easily share their thoughts and suggestions.

### 3.1.4 Regular Maintenance

As a technology-driven business, regular maintenance is crucial to ensure optimal performance and minimize downtime. In order to identify and address potential issues earlier, the staff must conduct periodic checks for hardware and software, and plans for hardware upgrades. Repairs and upgrades are addressed promptly to maintain uninterrupted operations and deliver seamless service to customers. Additionally, routine cleaning and inspections of equipment, such as PC air vents and printers, are carried out to prevent damage and extend the lifespan of assets. These proactive measures not only enhance functionality but also help avoid service disruptions that could lead to customer dissatisfaction. By prioritizing maintenance, they ensure a reliable and high-quality experience for their customers.

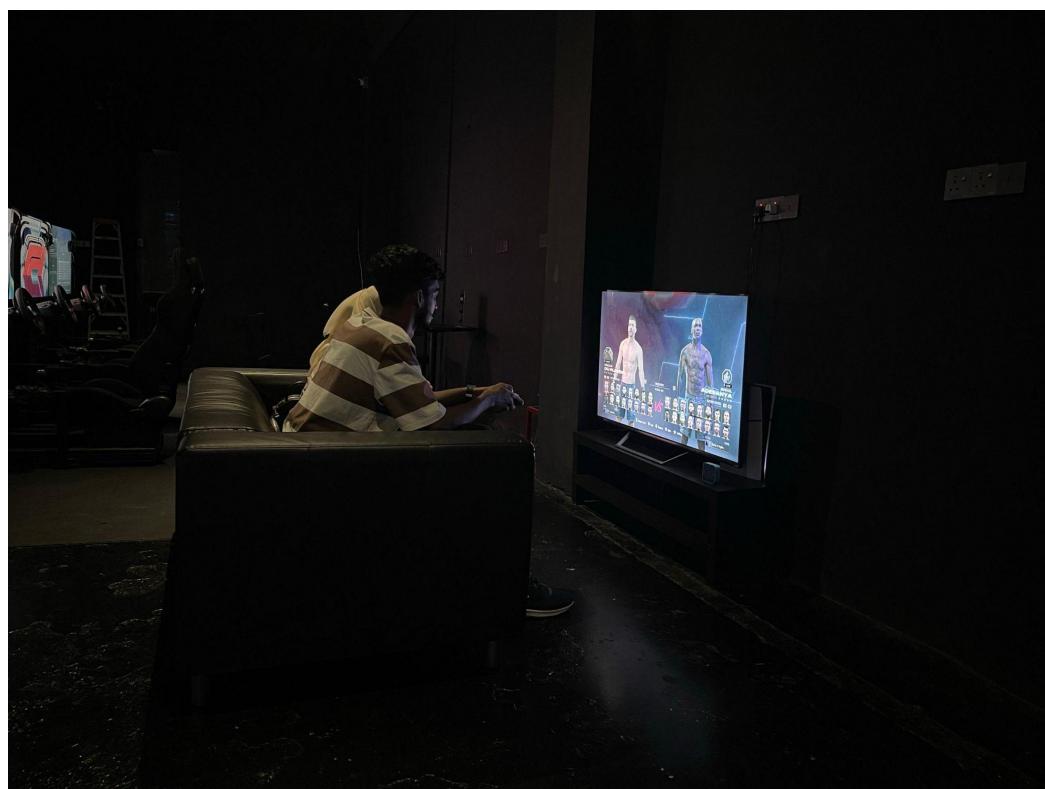
### 3.1.5 Employee management

Employee management in Project Play by CW involves organizing, supervising, and supporting staff to ensure smooth operations and high-quality customer service. Employees are typically responsible for tasks such as greeting customers, assisting with service selection, monitoring computer usage, troubleshooting technical issues, and maintaining the facility's cleanliness and security. Shift scheduling is very important in ensuring adequate coverage during peak hours. In Project Play by CW, shift scheduling is managed manually. According to Mr. Calvin, an availability form is shared in the WhatsApp group, where employees indicate their available time slots. Once all responses are collected, a designated person in charge reviews the submissions and finalizes the schedule. Additionally, to encourage exceptional performance of their employees, the management at Project Play by CW rewards staff with bonuses for breaking records, such as achieving the highest sales or meeting specific operational goals.

## 3.2 Problems Faced when Using the Manual System

### 3.2.1 Manual Inventory Check for Gaming Equipment

A major problem faced by the manual system is the high risk of inventory inaccuracies due to human error. Employees manually tracking equipment availability can result in mistakes such as miscounting, overlooking items, or failing to promptly update inventory records. These inaccuracies can lead to overbooking or underutilization of resources, causing delays, unmet customer expectations, and potential revenue loss. Additionally, the manual process is time-consuming. It will reduce overall productivity and it will cause more problems as the business grows. These limitations hinder the company's ability to provide a reliable customer experience, negatively impacting operational efficiency and customer satisfaction (Appendix A).



*Figure 3 - PS5 Console with Racing Simulator in the background at Project Play By CW*

### 3.2.2 Limited Customer Feedback Platform

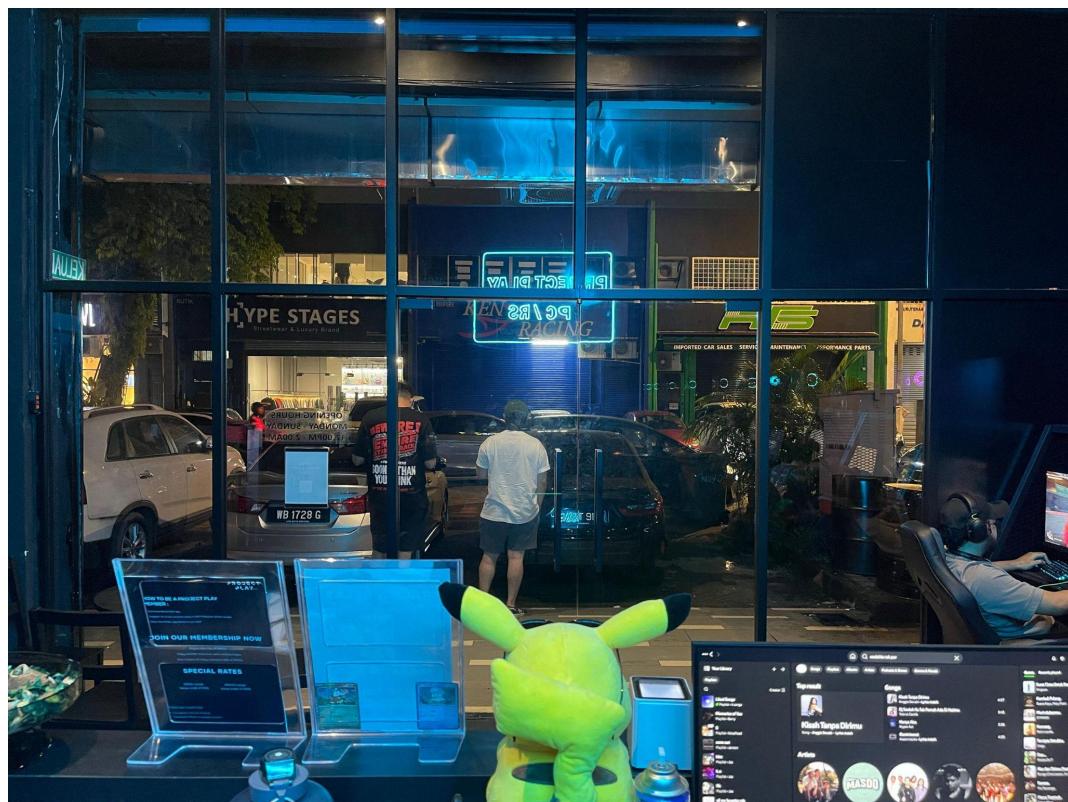
According to Mr Calvin, Project Play by CW is collecting feedback through google form and there is no structured platform to respond to customer feedback. Currently, feedback is one-way, with customers able to voice their opinions, but without receiving timely responses. This lack of interaction leads to customers feeling undervalued and may prevent Project Play from gaining actionable insights to improve service quality and customer satisfaction (Appendix A). Furthermore, the feedback analysis is limited as Google Forms only provides basic summaries of responses (Valtonen, 2024). For advanced data visualization or deeper analysis, the data must be exported to another tool, adding extra steps and complexity. This lack of an integrated feedback system prevents effective analysis of customer feedback and reduces the ability to implement meaningful improvements.



*Figure 4 - Front Desk at Project Play By CW*

### 3.2.3 Manual Reward System

The manual reward system at Project Play by CW poses several challenges that can hinder organizational efficiency and employee satisfaction. First, the process is time-consuming, as the manager needs to verify sales, compare KPIs, and calculate commissions, which can delay the distribution of rewards. Also, this reliance on manual input and Excel sheets increases the possibilities of human errors, such as there might be incorrect calculations or data entry, leading to inaccuracies in rewards allocation. Additionally, the system lacks scalability, making it difficult to handle increased data volumes as the business grows. These inefficiencies can result in delays or errors in distributing rewards, potentially causing employee dissatisfaction (Appendix A).



*Figure 5 - Front Desk (Staff View)*

### **3.3 Types of Information System (IS) to be Implemented**

#### **3.3.1 Inventory Management System (IMS) and Supply Chain Management (SCM)**

An Inventory Management System (IMS), such as Zoho Inventory, can be implemented to automate the tracking and management of gaming equipment. It provides real-time visibility into equipment availability and requires minimal manual effort (Kelly, *et al.*, 2020). By integrating this with tools like digital signage, the system can display real-time updates on equipment status and wait times. Customers are able to access information independently and streamlining the rental process. Meanwhile, an Integrated Supply Chain Management (SCM) System serves as a central platform connecting inventory, maintenance, and customer management processes. It facilitates seamless data sharing across departments, automates workflows like reordering and equipment diagnostics, and provides valuable analytics for decision-making. Together, these systems optimize operational efficiency, minimize errors, and enhance the overall customer experience.

#### **3.3.2 Customer Relationship Management (CRM)**

Customer Relationship Management (CRM) systems are implemented to assist in managing the customer's interaction with the organization or company. This enables the organization to provide enhanced satisfaction to customers and generate more revenue stream through organizing and analyzing customer data. They consist of data collection, information segmentation of customers, sales and marketing automation, customer service support, AI analytics, task automation, and communication tools. More of these will get discussed in Section 4 of this paper. An integration of CRM with Zoho and Zapier, for instance, will enhance feedback management and actionable insights into what can be done to improve customer satisfaction and service quality in Project Play by CW. Because CRMs can centralize and offer real-time insights into customer information, they can improve operational efficiency and decision-making (Gil-Gomez *et al.*, 2019). Personalized engagement and follow-up promote good relationships as they help the business engage and respond to customer concerns more quickly.

### 3.3.3 Human Resource Management (HRM)

Human Resource Management (HRM) in an organization involves the effective management of employees to enhance performance, motivation, and productivity. Key components of HRM include recruitment, training, performance management, compensation, and employee engagement. HRM systems automate various processes to increase efficiency and accuracy, such as tracking employee performance, managing payroll, and calculating commissions. In an automated environment, tools like POS systems record sales data, which is then sent to sales tracking software. This data is integrated with the HRM system such as Zoho People, allowing the automated tracking of KPIs related to sales performance. Automation tools, like Zapier, trigger actions such as sending new member sign-up data to the HRM system, which helps calculate employee-related metrics such as sign-ups and commissions. This streamlining of processes ensures that HR tasks, including performance tracking, employee incentives, and overall HR management, are carried out efficiently, improving decision-making and staff motivation.

## **3.4 The Effects of Politics, Cultures and Environments**

### **3.4.1 Politics**

Organizational politics is defined as actions not officially approved by an organization taken to influence others to achieve one's personal goals (Hochwarter et al., 2020). According to AIHR (n.d.), objectives of organizational politics also include boosting productivity and resolving disputes. Under Project Play by CWs, there are informal employee alliances, which reflect a subtle form of organizational politics. These alliances allow the division of work, an example being one employee assists gamers while another is responsible for billing and troubleshooting, usually based on common understanding and shared objectives. This positive politics helps to navigate the challenges of peak hours and operational demands. It also demonstrates how often informal dynamics could complement formal roles in ensuring smooth operations and customer satisfaction. Organizational politics also come in mentorship, where senior employees informally influence junior staff by sharing technical skills and best practices. This practice not only improves service quality but also strengthens the senior employees' influence within the team.

However, like in many workplaces, political tensions can arise due to perceived inequities, such as some staff slacking, taking extended breaks, or making repeated mistakes. The resultant conflicts may occur when others feel overburdened or undervalued. Timely, careful intervention by the leadership regarding such issues would involve opening channels of communication and ensuring that mentorship and alliances do not become divisive. Making wise use of positive aspects of organizational politics and managing conflicts carefully would have helped Project Play by CW create a culture balanced in favour of collaboration, influence, and accountability.

### **3.4.2 Culture**

Project Play by CW places great emphasis on delivering exceptional service and fostering a welcoming culture. They ensure a seamless experience for all customers with fast, reliable internet and user-friendly equipment. Project Play by CW attracts customers from various countries, they are committed to providing fair and equitable treatment to everyone. They promote collaboration and continuous learning, as staff members actively share knowledge about games, software, and troubleshooting to assist customers. They always ensure that people of all ages and skill levels feel comfortable and valued. This dedication creates a community where regular customers feel connected and appreciated, while staff remain motivated and engaged.

Besides, according to Mr Calvin, their workplace culture also emphasizes mutual respect, with

leadership that acts more like supportive mentors than traditional bosses. Mistakes are addressed patiently, and employees are given opportunities to learn and grow, fostering a positive and empowering environment. They emphasize recognition and motivation, and they reward employees for outstanding performance. Project Play by CW has earned a reputation as more than just a cybercafe, it is a dynamic hub for gaming, work, and socializing.

### 3.4.3 Environment

The environment of Project Play by CW is shaped by internal and external forces that impact its operations. Internally, effective management, teamwork, and a collaborative culture are vital for smooth service delivery, while addressing challenges like staff turnover and operational inefficiencies ensures harmony and productivity. On the other hand, external factors include political, economic, technological, and socio-cultural dynamics (Satyendra, 2020). Project Play by CW operates within regulatory frameworks, balancing licensing and compliance with political stability and government initiatives that can create opportunities or challenges. From the aspect of the economy, economic fluctuations will also affect the business operation. It requires strategic pricing and cost management to stay competitive. For example, Mr Calvin mentioned that many cybercafe closed due to the economic fluctuation caused by the pandemic. Next, technological advancements like VR, cloud gaming, and esports necessitate regular investments in upgrades and cybersecurity. Socio-cultural trends, such as the growing acceptance of gaming and esports, influence customer expectations. Adapting to these factors allows Project Play by CW to thrive as a hub for gaming, work, and social connection.

## 4.0 Porter's Five Forces

Porter's Five Forces is a strategic analysis framework used by businesses to identify and analyze the competitive forces of the industry it operates in. The model helps companies better understand where power is in their industry by guiding them in assessing the level of competition and possible profitability within their market (Danao, 2024). The five forces are competitive rivalry, threat of new entrants, threat of substitutes, bargaining power of buyers and bargaining power of suppliers.

Project Play by CW specialises in cyber cafes and works in the retail sector. **Competitive rivalry**, or the level of competition between current companies in the business, is one of the main forces in this framework. In order to preserve market share, businesses must develop and enhance their products in response to fierce competition, which might restrict profitability (Luenendonk, 2019). Significant changes have occurred in Malaysia's cyber cafe market concentration, especially as a result of the COVID-19 outbreak. A study claims that a lot of Malaysian cyber cafes and entertainment venues shut down during the epidemic, which reduced competitiveness (Kong, 2020). As of right now, the **competition is extremely low** even in this international student area as stated by Calvin (Appendix A) The current low level of competition presents a unique opportunity for Project Play by CW to establish a strong market presence. This means that the business can capitalize on the reduced competition to attract a larger customer base and build brand loyalty (Danao, 2024). Project Play by CW can stand out in the market by taking advantage of current opportunities and staying ahead of future competitors. This could involve fostering a friendly and inclusive atmosphere for international students and consistently enhancing the quality of what they offer.

The **threat of new entrants** describes the risk posed by new competitors entering the market and causing shifts in the existing industry dynamics. This threat is influenced by the ease with which newcomers can establish themselves in the industry. Factors such as high startup costs, strong brand loyalty, or regulatory requirements can act as barriers, reducing the likelihood of new entrants (Danao, 2024). Conversely, low barriers to entry increase competition and may impact profitability by fragmenting the market (Danao, 2024; Harvard Business School, 2024). Depending on the size and location, opening a cyber cafe in Malaysia necessitates a significant financial investment that typically ranges from MYR 200,000 to MYR 400,000 (Bestar, 2023). Additionally, operators need a thorough understanding of the technology and market to ensure success (Cotter, 2024). The founder of Project Play mentioned that new stores are opening, but he does not see them as a significant threat due to his unique vision and the high quality of service provided (Appendix A). The high barriers to entry in the cyber cafe industry, such as the significant capital required for gaming equipment, present a substantial challenge for new entrants, making the **threat of new entrants quite low**. This means that Project Play by CW can

maintain its market position without immediate threats from new competitors. The substantial capital investment required to set up a cyber cafe, along with the unique environment and service quality provided by Project Play, creates a strong competitive advantage. This reduces the likelihood of new entrants successfully penetrating the market (Paramadita and Hidayat, 2022). By leveraging its established market presence and focusing on creating a unique and welcoming environment, Project Play can continue to differentiate itself from potential new competitors. This tactic ensures steady growth and profitability by drawing in new consumers in addition to keeping hold of current ones. A strong emphasis on relationship-building and the customer experience greatly improves both customer acquisition and retention (Weinstein, 2002).

Another key force in this framework is the **threat of substitutes**, which refers to how easily customers can replace your product or service with something else. If there are lots of alternatives that are cheaper, better, or more convenient, your business might struggle to keep customers (Danao, 2024; Harvard Business Review, 2024). Alternatives like mobile gaming, home gaming setups, and other entertainment alternatives are a serious threat to the cyber cafe industry. High-end gaming PCs can cost anywhere from MYR 5,000 to MYR 10,000 to set up at home, which makes them a desirable substitute for serious gamers (Paget and Hesse, 2022). The founder of Project Play mentioned that while gaming equipment might be substituted, the business adapts to industry trends, such as incorporating mobile games and PS5, to stay relevant (Appendix A). The presence of various substitutes in the gaming and entertainment industry presents a substantial challenge for cyber cafes. This means that Project Play by CW must continuously innovate and adapt to industry trends to maintain its competitive edge. Although the founder does not see the threat of substitutes as a major issue due to the unique environment provided, the **threat remains moderate** due to the market dynamics such as evolving customer preferences, technological advancements, and competitive pressures (Paget and Hesse, 2022). By staying attuned to the latest gaming trends and incorporating popular gaming platforms like mobile games and PS5, Project Play can mitigate the threat of substitutes. This proactive approach ensures that the business remains attractive to its target audience. Furthermore, operating in an international hub near private universities increases the exposure to potential substitutes, making the threat moderate (Paramadita and Hidayat, 2022). Project Play by CW can establish a strong value proposition that sets it apart from competitors by utilizing its flexibility in responding to shifting gaming trends and providing a wide variety of gaming experiences. This tactic ensures steady growth and profitability by drawing in new clients in addition to keeping hold of current ones. Research indicates that companies that prioritize customer-centric innovation and consistently improve their service offerings have a higher chance of retaining existing clients and drawing in new ones (Arnold, Fang, and Palmatier, 2011).

Another key force in this framework is the **bargaining power of buyers**. This refers to the power customers have to shape what businesses offer. If buyers have a lot of options or can easily switch to competitors, they can demand better products, lower prices, or exceptional service (Dano, 2024). High bargaining power of buyers can limit profitability as businesses may need to make concessions to retain customers (Danao, 2024; Harvard Business School, 2024). The bargaining power of buyers for Project Play by CW is **relatively high** due to the shop being situated in a wealthy area considered as the most expensive university hub. The demographic consists of students from one of the most expensive educational centers in Malaysia, which means they have significant influence over pricing and service quality. To address this, Project Play offers memberships and focuses on providing excellent service and a pleasant ambiance (Appendix A). In order to fulfill the high expectations of its customers, Project Play by CW must constantly improve its offerings and customer experience because the area's high purchasing power gives purchasers more negotiating leverage. Project Play by CW must keep offering creative and superior services because of the customers' great spending power and the range of entertainment options at their disposal. This approach ensures that the business will remain competitive and appealing to its target market, claim Hill and Alexander (2006). Project Play can successfully handle the strong negotiating power of its customers by concentrating on providing outstanding customer service and fostering a friendly atmosphere. This tactic ensures steady growth and profitability by drawing in new clients in addition to keeping hold of current ones. Companies that put a high priority on client loyalty and satisfaction are better able to keep existing clients and draw in new ones (Hill and Alexander, 2006).

Lastly, another important factor in this framework is **bargaining power of suppliers**. This refers to how much influence suppliers have over a company. If suppliers are in a strong position, they can charge higher prices, provide lower-quality materials, or limit the availability of goods, forcing businesses to adapt to their terms. It is favourable for an industry to have low bargaining power of suppliers because companies may have to accept disadvantageous conditions in order to acquire necessary supplies, high supplier bargaining power can limit profitability (Danao, 2024; Harvard Business School, 2024). The availability of several suppliers, which reduces dependence on any one of them, further weakens their negotiating position. Statistics show that businesses with a diverse supplier base can reduce procurement costs by up to 20% and improve supply chain resilience (Garcia, 2024). The **low bargaining power of suppliers** is advantageous for Project Play by CW. This means that the business can negotiate better terms and maintain cost efficiency, which is crucial for sustaining profitability. The ability to switch suppliers easily and the presence of multiple suppliers globally provide Project Play with a strong negotiating position.

This lessens the possibility that suppliers may exert significant pressure on the company, enabling Project Play to keep competitive prices and high standards of quality (Hill and Jones, 2012). Project Play can guarantee a consistent supply of premium products at affordable costs by upholding a wide network of suppliers. This tactic guarantees that the company can promptly adjust to any changes in the supply chain in addition to preserving cost effectiveness. Businesses with diverse supplier bases are better equipped to control supply chain risks and preserve operational stability, according to research (Hill and Jones, 2012).

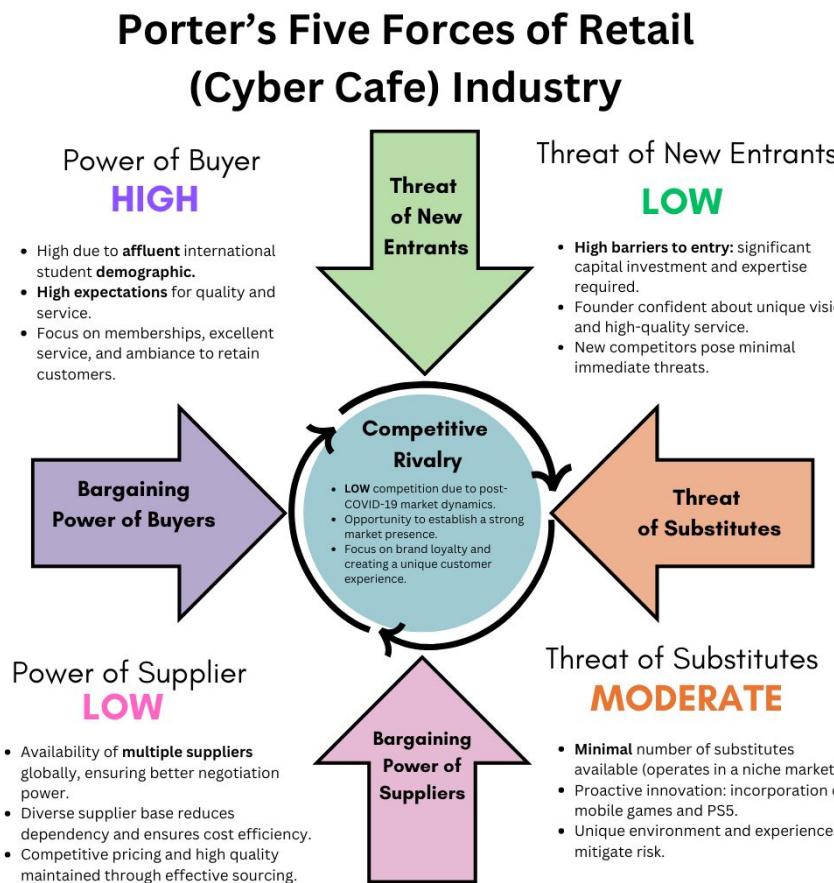


Figure 6 - Porter's Five Forces of Cyber Cafe Industry for Project Play by CW

## 5.0 Management Information System (MIS) Plan

### 5.1 Supply Chain Management (SCM)

#### As-is Business Process for Gaming Equipment Rental from Project Play by CW

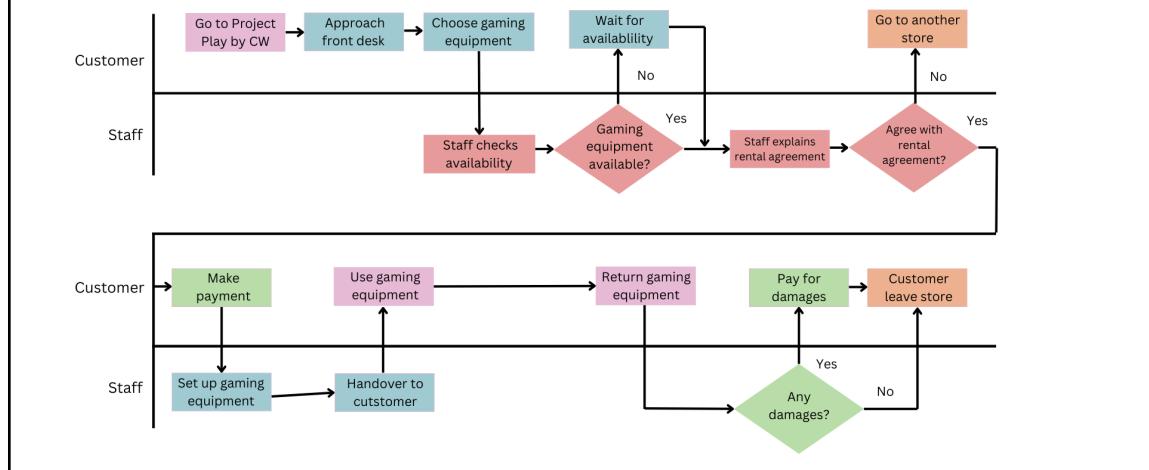


Figure 7 - As-Is Business Process of Project Play by CW (Order Fulfillment)

#### SCM Business Process for Gaming Equipment Rental from Project Play by CW

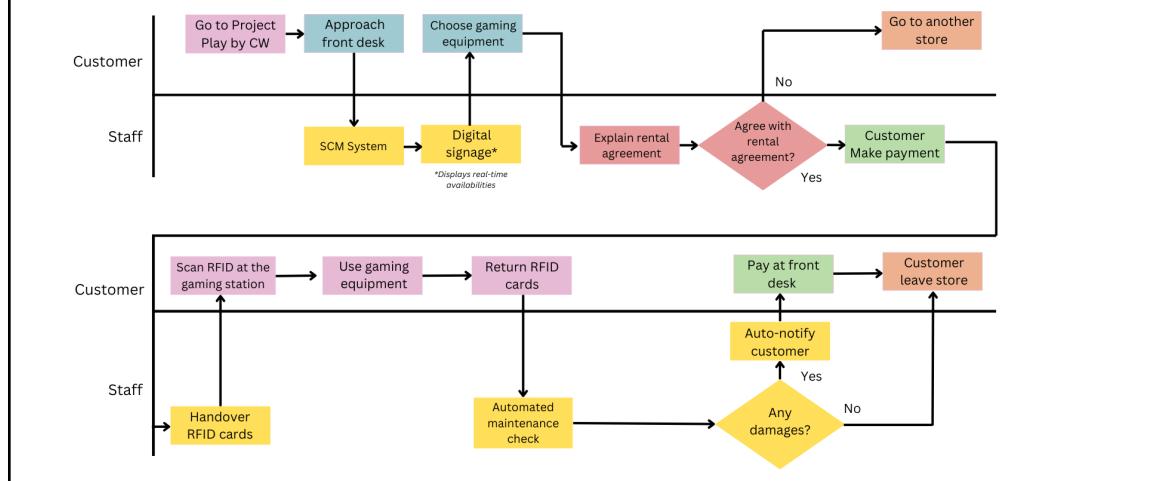


Figure 8 - New Business Process of Project Play by CW (Order Fulfillment) with Automation Opportunities using SCM

Figure 3 illustrates the current order fulfillment process for gaming equipment rental at Project

Play by CW, which is predominantly manual. As the business is relatively new, it has not yet implemented comprehensive SCM systems or automation. One significant inefficiency in the current process is the manual inventory check. Employees must verify the availability of gaming equipment manually, which is both time-consuming and prone to human error (Appendix A). This inefficiency can lead to delays in order processing, miscommunication about equipment availability, and a subpar customer experience. To address these inefficiencies, *Figure 4* presents a streamlined order fulfillment process that incorporates SCM principles and automation technologies. The implementation of these automation opportunities will significantly enhance the efficiency and reliability of business operations.

In the current system, staff manually checks equipment availability, causing delays and potential errors. By implementing an **automated inventory system**, such as Zoho Inventory, real-time availability can be displayed on **digital signage** tools like NoviSign. This automation allows customers to independently check equipment availability and view estimated wait times on a screen, reducing reliance on staff (Kelly, *et al.*, 2020). As a result, the process becomes faster and more accurate, enhancing customer satisfaction (Kelly, *et al.*, 2020). Moreover, The current setup process requires staff to configure gaming equipment manually, which can be inefficient during busy periods. By introducing **RFID cards**, customers can scan their cards at gaming stations, automatically configuring game settings and pairing controllers without staff assistance. This innovation provides a quick, contactless setup that reduces labor costs and empowers customers to manage their gaming sessions independently (Gaukler and Seifert, 2007). Currently, equipment maintenance is often reactive, initiated after customer complaints or staff observations. **Automating maintenance diagnostics** ensures that gaming equipment is tested after each use, verifying joystick calibration, updating software, and addressing any potential issues. Built-in monitoring systems can report problems to staff or initiate remote troubleshooting. This proactive approach minimizes downtime and ensures equipment reliability for the next user (Okeke, 2024). Damage fees and other critical updates are currently communicated manually, leading to potential delays or misunderstandings. An automated notification system can inform customers of damage fees instantly via digital monitors at the front desk. This transparency builds trust and streamlines the checkout process, creating a smoother customer experience (Morsink, 2024).

## 5.2 Customer Relationship Management (CRM)

### As-is Business Process for Customer Feedback at Project Play by CW

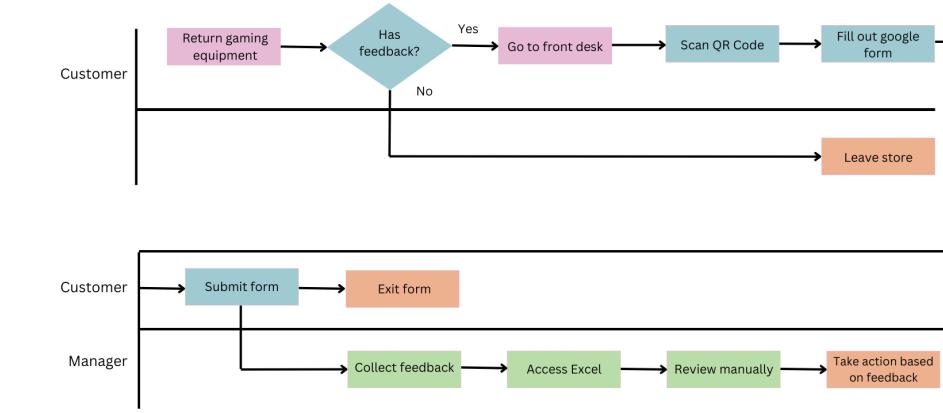


Figure 9 - As-Is Business Process for Customer Feedback of Project Play by CW

### CRM Business Process for Customer Feedback at Project Play by CW

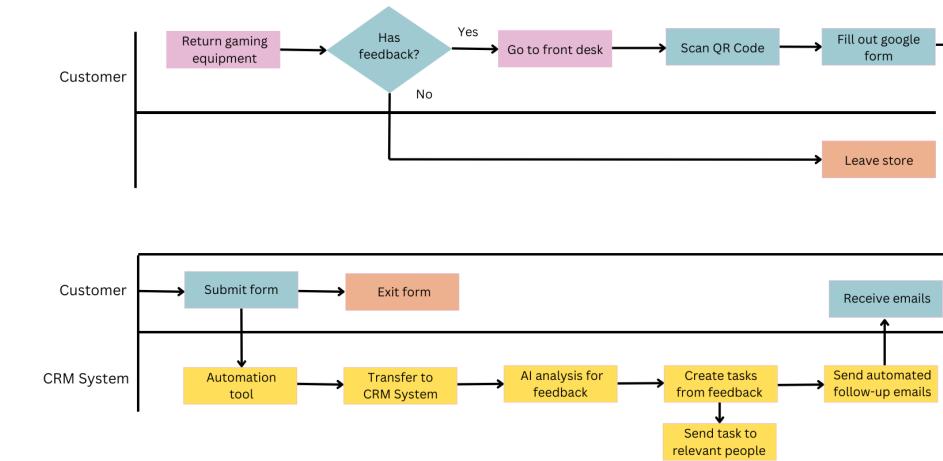


Figure 10 - New Business Process for Customer Feedback of Project Play by CW with Automation Opportunities using CRM

The current customer feedback process at Project Play by CW is entirely manual, relying on a voluntary system where customers scan a QR code to provide feedback via Google Forms. However, this approach is inefficient and lacks follow-up, creating a one-way interaction that leaves customers feeling undervalued (Sadhu, et al., 2024). At Project Play by CW, the manager must manually collect and review the feedback using Excel, which is time-consuming and error-prone, making it difficult to identify trends or address critical issues effectively. This system ultimately limits actionable insights and hinders customer satisfaction improvements (Sadhu, et al., 2024). Figure 5 outlines the existing feedback process, which is manual and lacks a structured system for effective management.



Figure 11 - QR Code for Customer Feedback at Front Desk

In contrast, Figure 6 highlights the proposed feedback process, which leverages CRM integration and automation tools to address these shortcomings. The new process introduces several key improvements designed to enhance efficiency, customer engagement, and actionable insights. The incorporation of an **automation tool**, like Zapier, to move feedback data straight from the Google Form into a CRM system, like Zoho CRM, is one of the initial modifications. Zoho CRM is a great choice for small and medium-sized organizations because it provides powerful features like configurable workflows, AI-driven insights, and integration capabilities with tools like Zapier at a reasonable cost (Shabdar, 2017). By acting as a middleware solution, Zapier enhances Zoho CRM by facilitating smooth data transfer and application integration without the need for sophisticated technical expertise (Gil-Gomez et al., 2019). This eliminates the need for manual data entry, reducing the potential for errors and ensuring feedback is available in real-time for further processing. The **CRM system** acts as a consolidated platform for managing, organizing, and storing feedback. **AI-powered analysis**, which automatically groups comments into categories like game selection, cleanliness, or customer service, is one of its primary characteristics (Zoho CRM, 2024). This aids managers in seeing patterns and ranking problems that require urgent action. For instance, the system marks the gaming area's cleanliness as a priority for action if several patrons express reservations about it (Zoho CRM, 2024). The CRM system allows the company to concentrate on effectively resolving essential issues by simplifying the analysis process (Sadhu et al., 2024).

Another significant enhancement is the **automation of task creation**. Based on the categorized feedback, the CRM system generates tasks and assigns them to the appropriate team members (Zoho CRM, 2024). This ensures accountability and streamlines the process of addressing customer concerns, making it easier for the business to implement changes and improve service quality (Sadhu, et al., 2024). The new process also includes **automated follow-up emails**, a feature that fosters two-way communication with customers. After feedback is addressed, the CRM system sends personalized emails to thank customers for their input, inform them about the actions taken, and highlight any improvements made (Zoho CRM, 2024). This approach not only makes customers feel valued but also builds trust and loyalty by demonstrating that their opinions are taken seriously (Gil-Gomez, et al., 2019). Additionally, managers benefit from a user-friendly CRM dashboard that displays feedback in a clear and organized manner. The dashboard prioritizes feedback based on AI analysis, allowing managers to focus on the most pressing issues. This improves decision-making and ensures resources are allocated effectively (Sadhu, et al., 2024).

The proposed process offers numerous benefits for Project Play by CW. While AI-driven insights allow for data-informed decision-making, automating repetitive operations saves staff time and workload. Stronger relationships and more participation in the feedback process are fostered by the capacity to communicate with clients and respond to their input (Sadhu et al., 2024). Moreover, the scalable nature of the CRM system allows the business to handle larger volumes of feedback as it grows. The integration of CRM and automation transforms the customer feedback process into a structured, efficient, and interactive system. By addressing the limitations of the current process, these enhancements enable Project Play by CW to improve customer satisfaction, operational efficiency, and overall service quality (Gil-Gomez, et al., 2019). This shift not only strengthens the business's competitive edge but also positions it for sustainable growth in the future.

## 5.3 Human Resources Management (HRM)

### As-is Business Process for Reward System at Project Play by CW

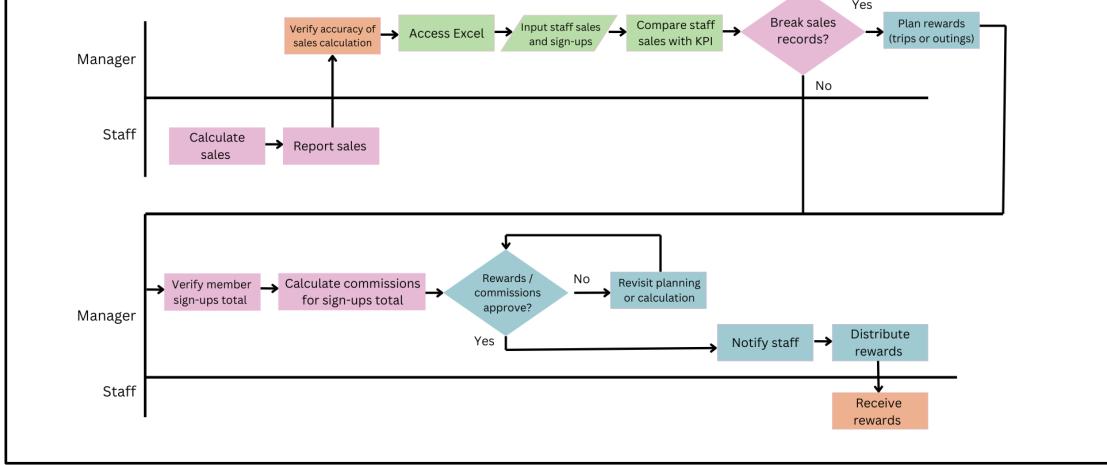


Figure 12 - As-Is Business Process for Employee Reward System of Project Play by CW

### HRM Business Process for Reward System at Project Play by CW

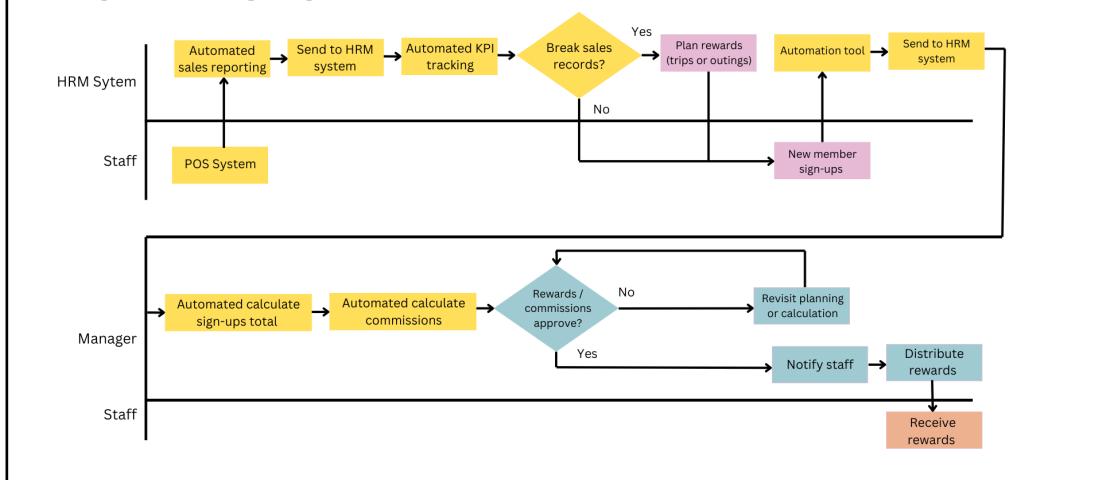


Figure 13 - New Business Process for Employee Reward System of Project Play by CW with Automation Opportunities using HRM

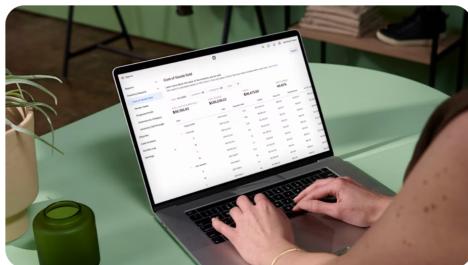
As seen in *Figure 7*, Project Play by CW's staff reward system is currently a labor-intensive, manual procedure with multiple inefficiencies. The procedure depends on managers and employees to manually maintain data, validate member sign-ups, and compute sales—all laborious tasks that are prone to human error. This method raises the possibility of mistakes in crucial areas like commission computations while limiting the organization's efficiency and scalability. Automation and HRM tools are used in the suggested approach shown in *Figure 8* to overcome these obstacles and increase overall productivity. The company may increase accuracy, remove duplications, and develop a more open and employee-friendly compensation system by utilizing automation.

One of the main inefficiencies in the current system lies in the manual reporting of sales data. Before entering the data into spreadsheets, managers check the accuracy of the sales figures that employees have calculated and reported to them. In addition to taking a lot of time, this procedure is prone to data entry and verification errors. The implementation of a **point-of-sale (POS) system**, like Square as shown in *Figure 9*, ensures that all transactions, digital and cash, are precisely documented by automating the collecting of sales data at the point of sale. The requirement for manual reporting and verification is therefore removed when this data is automatically transferred to sales tracking software. According to Bangia *et al.* (2023), automating sales data collection can improve operational efficiency by up to 50%, allowing managers and staff to focus on more strategic tasks.

## A point of sale for however you sell.

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Square for Retail

A POS system designed to help retail stores sell in-store and online seamlessly, with built-in tools for advanced inventory management, sales, and staffing.



Square for Restaurants

A POS built to streamline and speed up your restaurant operation, from front-of-house and back-of-house to pickup and delivery.

*Figure 14 - Square (Point-of-Sale System)*

The integration of sales tracking software with an **HRM system**, such as Zoho People, further enhances efficiency by creating a seamless flow of information. Key performance indicators (KPIs) are tracked using sales data that is automatically sent from the POS system to the HRM system. Managers can make data-driven choices without the delays and errors that come with manual tracking thanks to this **automated KPI tracking**, which offers real-time insights into staff performance. Kambil (2023) highlights that HRM systems reduce administrative workloads by 30% by streamlining data integration and reporting processes, making them an invaluable tool for modern organizations. Another critical improvement in the proposed system is the **automation of new member sign-up tracking**. Currently, the process of associating new member sign-ups with individual staff members is done manually, which can lead to errors and disputes. New member sign-ups are automatically tracked and associated with the staff members that assisted them when an **automation technology** such as Zapier is used. After that, the HRM

system receives this data and uses it to determine how many sign-ups each employee has made overall. Automation reduces the risk of errors and ensures transparency in tracking contributions. According to Zapier's official documentation (2024), automation can reduce task completion times by up to 80%, significantly improving organizational efficiency.

The **automation of commission calculations** is another key aspect of the new HRM system. In the current process, managers manually calculate commissions based on reported sales and sign-ups, a task that is both time-intensive and prone to errors. The HRM system in the proposed workflow automatically calculates commissions based on the total number of sign-ups and predefined criteria. This not only speeds up the process but also ensures accuracy and fairness, as calculations are performed consistently and without bias. Automating financial processes can reduce calculation errors by 95%, building trust among employees and creating a more reliable reward system (Jain and Sharma, 2024). The broader impacts of implementing automation and HRM systems extend beyond efficiency gains. Automation allows processes to be completed faster and with fewer resources, enabling the organization to handle larger volumes of data without additional administrative overhead. This scalability ensures that the system can grow alongside the organization, future-proofing its operations. Furthermore, automated systems enhance accuracy by minimizing human involvement in repetitive tasks, thereby reducing errors and inconsistencies (Eziefule, 2022). Organizations that adopt automated reporting and tracking systems see improvements in decision-making accuracy by up to 40% (Eziefule, 2022).

The transition to an **automated reward system** also has significant implications for employee satisfaction. A transparent and reliable reward system fosters trust among staff, as they can be confident that their contributions are being tracked and rewarded accurately. This, in turn, motivates employees and encourages higher performance levels. Organizations with transparent and automated reward processes experience increased employee engagement and satisfaction, contributing to a more positive workplace culture (Fuping and Rongyu, 2024). The transformation of the employee reward system at Project Play by CW through the integration of automation and HRM tools addresses the inefficiencies of the current manual process. By automating sales reporting, KPI tracking, and commission calculations, the proposed system eliminates redundancies, improves accuracy, and creates a scalable framework for future growth. These changes not only enhance operational productivity but also empower employees by fostering a transparent and trustworthy reward system. The adoption of these technologies is a strategic investment that will drive long-term success for the organization.

## 5.4. Security and Privacy Issues

### 5.4.1 Security & Privacy Issues

Implementing automation for the first time in any company always exhibits risks of security and privacy issues. We have proposed tools to facilitate the automation process, although the tools mentioned are proven to benefit the company by automating several processes; we cannot overlook potential risks residing that concerns security and privacy issues (Belding, 2021).

Zapier is an integrated solution that allows users to automate tasks via customized workflows using web apps. Zapier makes it so that when multiple tasks are needed to be done with several apps open, all of it can be done at once via automation. With a solution being this convenient, security and privacy issues will definitely pose serious threats in the future. Zapier's most concerning security risks is its **storage app being global**. The risks are enlarged when the user assumes that the storage is account based, therefore leading them to choose weak arbitrary keys. In this case, authentication tokens and personally identifiable information (PII) can be found upon review. Another security risk followed by the key issue is if users chooses the same password or username that already exists, an erasure or overwrite of data might occur. Key collisions have been a flaw in Zapier's solution until this day. (Doudkine, 2020)

Another security and privacy risk that ties with Zapier's storage issue is **absence of Zapier account**. End user doesn't have to register an Zapier account to interact with the apps, no account ties would imply that there is no way to track and record activities across the apps. Attacks could happen through installation of malware into the app's system making commands hence posing serious threats.

Automation tools often process and store PII, such as customer's personal details, banking address and payment details. Hence, tools that have not been privacy-complaint may lead to data misuse which will potentially violate privacy regulations causing the data to steer in its unintended purpose. (2023) On the other hand, automation tools such as Zapier that have **globally available storage** can cause compliance issues. Reason being that policies of automation tools might not always conform with local data protection standards depending on the country and region, leading to regulatory penalties. Cybersecurity risks might surface after implementing automation systems. Automation often means that multiple tools and softwares are involved to perform the act of automation, this could be the main reason for system vulnerability. (Dasari, 2023) By connecting several apps, platforms, softwares etc. means that integration process is needed at each step, meaning that poor integration at each point of connection will serve as potential entry point for attackers to infiltrate the system. Unpatched software bugs or outdated systems are one of the vulnerabilities of software mismanagement, poor server providers or incompatibility with the integration process. Attackers will often utilize this opportunity to exploit

the weaknesses of the system, stealing confidential data, disrupting services, and corrupting softwares.

**Human factors** have to be considered even though automation have been set up to automate certain business processes. One of the main issue is user misconfiguration as improper setup of automation could lead to several errors such as leaking sensitive customer details, confidential company information, important policies etc. n.d. (2023) Although automation are implemented to reduce employees' workload, they tend to over rely on automation to do their work without proper monitoring. With that being said, errors on the system, malware attacks, bugs and loopholes might go unnoticed and will damage the system causing significant damage on all aspects. (Matthews, 2018)

#### **5.4.2 Prevention Strategies**

One of the easiest and best prevention strategies is implementing firewalls. Firewalls always act as the **first line of defense** from any potential danger. Firewalls work by helping **filter and block** potential hackers from accessing one's sensitive data. Users can choose from various types of firewalls which it's strategy is best suited for a business' information system. There are various types of firewall strategies, **packet-filtering firewalls** is one of them. Its function came from its name, this firewall act as traffic gatekeepers filtering packets, checking its basic details such as sender, receiver and protocols. Next in line is **Stateful Inspection Firewalls**, this firewall is smarter than packet-filtering firewalls as they keep track of active connections within the system. With combined efficiency with connection tracking, they can easily detect IP spoofing attacks and the likes of it. Followed by **Application-level Gateways (Proxy Firewalls)**, this firewalls works best for user-server based information systems. It is highly effective for checking the contents of data for potential threats that could harm the server, the downside of this firewall is it will often slow down the network used. We would recommend Project Play to implement **Next-Generation Firewalls (NGFW)** which is an all-included firewall with extra functions such as malware prevention and pre-installed VPN, it is best suited for enterprises or businesses that need layered protection.

**Antivirus software** is also essential for an entertainment business such as Project Play. To prevent viruses infiltrating the system, antivirus software is necessary as it detects and removes

malicious software or attacks that could provide unauthorised access to automation systems. Tools like McAfee total protection are advised to use as a safeguard against malwares and viruses. **Multi-Factor Authentication (MFA)**, this is an authentication strategy which requires users to provide multiple forms of verification to authenticate the users identity before granting access into the system, with this it could significantly reduce the risk of unauthorized entry into the system.

As for the prevention strategy for data leakage, we would recommend using **Data Loss Prevention (DLP) solutions**, specifically Symantec DLP. Symantec DLP provides comprehensive data protection capabilities by preventing unauthorized sharing of sensitive personal and company data by monitoring and controlling the process of data transfers. **Encryption** is also one of the key strategies of encryption protocols to protect users' data. Encryption ensures data is unreadable and inaccessible for unauthorized users.

As to prevent integration risks, Project Play could implement **secure APIs** with proper authentication protocols to check each section of integration points, preventing risks of attackers taking the chance to attack integration points. Other than that, utilizing **monitoring tools** is also important to check and log API activity for suspicious activity in the system, the tools have to be equipped with pre-installed tools to prompt detection of suspicious activity and make appropriate responses to the potential threats.

## 5.5 Methods to Build MIS

There are a total of six Systems Development Processes in order to build a fully functional and beneficial management information system which consist of analysis, planning and execution of the MIS. The first process is conducting **Systems Analysis**. This consists of analysing the problem to be solved by the new proposed systems of SCM, CRM and HRM by identifying the problem, identifying the causes of those problems, specifying the solutions (as proposed in the new business process diagrams) and identifying the information requirements (Laudon and Laudon, 2018). Next would be to conduct a feasibility study which is crucial to the development process of the MIS. This study is conducted with the objective of evaluating a few aspects of the business which would need implementation of MIS such as technical, financial and operational feasibility. In this process, interviews have to be conducted with the stakeholders of Project Play to understand their requirements and needs for implementing MIS. After collecting feedback and information from the stakeholders, we have to identify constraints of resources such as budget, infrastructure capability and skill availability. Only then will we perform financial analysis to estimate the return of investment (ROI) of the MIS based on the data we have received and analysed through this feasibility study. Throughout this first method, we will be using Microsoft Project as the main software to plan and track feasibility studies (Davis, and Olson, 1985).

Moreover, the analysis is also carried out to gather and document organization's specific needs in order to tailor the MIS accordingly. We will first have to identify the types of data that the MIS would have to process, in this case it would be drinks, gaming equipment inventory, customer and employee feedbacks, employee records, payment system, etc. (Sommerville, 2010). To complete the analysis, we will have to conduct interviews with end-users and staff to align system capabilities and user expectations. This way we can maximise the efficiency of the MIS implementation. In this method, the use of UML (Unified Modelling Language) diagram is advised as it is capable of visualising system requirements (Sheldon, 2023).

The second process is **System Designs** where a blueprint of the MIS architecture is needed to be developed. During this process we have to analyze the system type best suited for Project Play By CW such as centralized, decentralized, or distributed system type and seek preference from stakeholders of the business (Laudon and Laudon, 2018). Then, designing of data flow diagrams (DFDs) are being done to efficiently map out how data moves within the system by using tools such as Draw.io (Laudon and Laudon, 2018). With the collection and direction of data being decided, we have to plan a database schema using relational database management systems (DBMS) using MySQL or Microsoft SQL Servers. To top it off, security measures have to be incorporated into the system design for encryption and access control in order to ensure data and

database is protected. (Laudon and Laudon, 2018)

The third process of the process is **Programming** which involves coding the specific system specifications into software program code that the business requires to execute the desire output from the design stage (Laudon and Laudon, 2018). In the case for Project Play by CW, the software program code should achieve the end result from the proposed business process diagrams such as automated commissions calculation, automated gaming equipment availability or automated follow-up emails from customer feedback.

The fourth process is the **Development and Testing** which is the most important process before deploying MIS into the field. Building and testing of the system so that it meets its specifications and requirements of the business owners are carried out during this process.

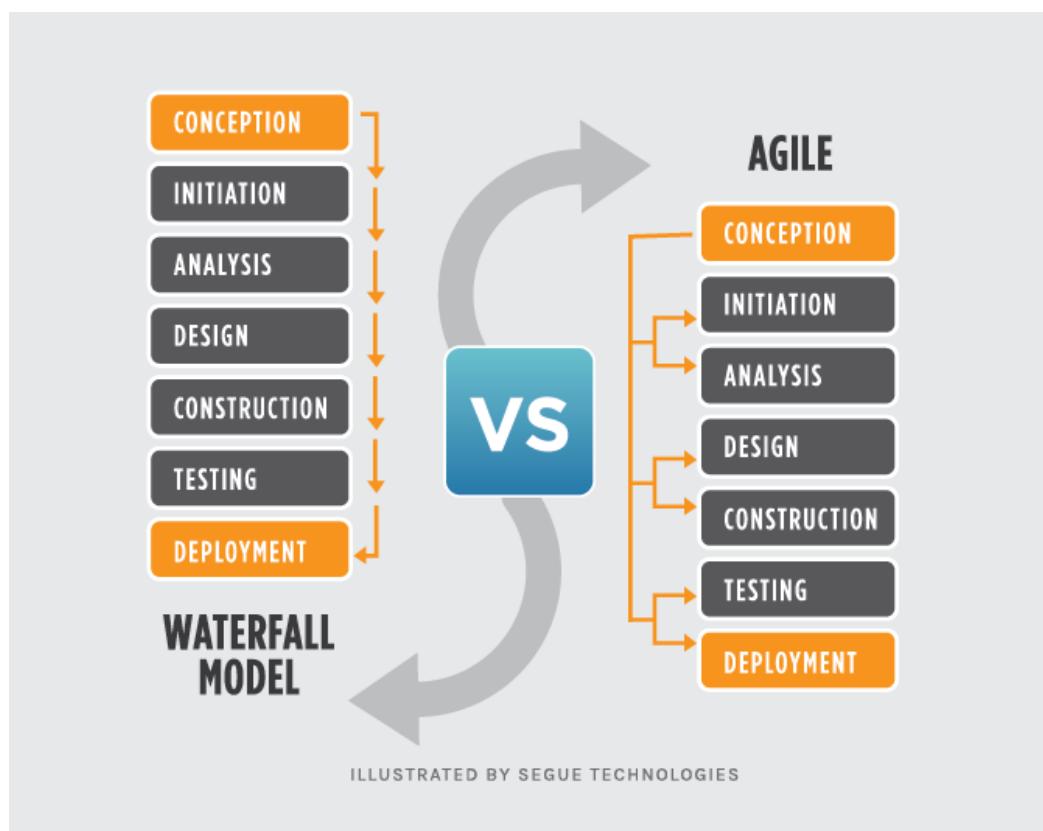


Figure 15 - Waterfall model vs Agile model

Throughout this process, we will determine whether waterfall or agile methodologies is a better suit for the system development process. Waterfall is a stricter, more linear methodology that limits a team's ability to diverge from the project plan; on the other hand, Agile has a margin of flexibility at each stage of the development process that allows change and incorporates new feedback. (Tozzi, 2024). With the guide of chosen methodology, integration process of automation tools like Zapier for workflow optimization can be carried out promptly. By the end

of this stage, related departments have to conduct testing on unit, integration and user acceptance (UAT) to identify flaws within the system and fix any bugs that have occurred during testing. Tools such as Selenium can be used for automated testing and Jenkins for Continuous Integration/Continuous Development (CI/CD). (Beck, 2000).

The fifth process is **Conversion** or it can also be viewed as the implementation of MIS systems and deploying it into the business. This is the process of changing from the old system to the new system (Laudon and Laudon, 2018). As Project Play is a relatively new and small business that can be considered as having almost a full-manual system for their complete business process, it is advised to take things slow by rolling out the system in several phases to ensure a smooth deployment (Thong, Yap, Raman, 1996). The best approach to implementing the MIS systems into Project Play By CW is to take the **phased approach**. In the meantime, employers have to invite professionals or IT members that have worked closely with the project in its development and testing phase to train their employees how to mitigate the MIS correctly and effectively, focusing more on the edge of user-friendly features such as dashboards and real-time analytics (Thong, Yap, Raman, 1996). Although deployment of MIS has been completed, development teams still have to monitor and ensure data mitigation from legacy systems is accurate and compatible. Cloud based systems such as Zoho CRM can be used to assist during CRM integration.

Even after successfully implementing and integrating the MIS into the organization, that is not the end of the line. The organization has to be fully committed to the system with a long-term vision of utilizing the MIS created to maximise ROI. That is where the last and six process come, **Production and Maintenance**. In this process, the organization has to ensure the MIS remains effective and up to date. To do that, employees have to monitor the system's performance regularly and report or fix issues that have surfaced immediately to minimize risks. Gathering feedback from end-users is essential to identify room for improvements and minor flaws within the system. The MIS can always be adjusted to suit user's preferences as it is installed in the first place to boost consumer satisfactory and reduce employee workload.

Other than the six main components of the Systems Development Processes, **Scalability and**

**Upgrades** are also prominent to ensure Project Play By CW stays competitive in the industry. Integrating modern and advanced AI technology to improve automation and predictive analysis is one of the current technology trends that will be a waste not to have it utilized in the Project Play By CW's business operations which relies so much on technology. Ensuring compatibility with emerging standards and protocols, adopting modular design principles to facilitate installation of new features are all included in the aspect of scalability and upgrades (Roy and Abdul-Nour, 2024) .

Moreover, **Security and Compliance** also plays a huge role in MIS. In order to protect the system from cyber threats and ensure regulatory compliance there are a few things that Project Play By CW have to consider in this scenario. To address security and privacy issues, Project Play By CW can implement comprehensive security measures such as firewalls, antivirus softwares, encryption protocols, enhanced policies and regular audits to minimize risks of cyber attacks (Laudon and Laudon, 2018). Adhering to privacy laws such as GDPR and HIPAA will strengthen the privacy aspects of the business as applicable. As for compliance, utilization of automated compliance monitoring tools to track adherence is highly suggested (Syed and ES, 2018). IBM Security QRadar is a modernized threat detection and response solution which will greatly benefit Project Play by embedding it into their system (Gunder, 2022).

## **5.6 IT Infrastructure Needed**

To successfully implement the MIS into the organization there are several IT infrastructure to be used as a component in the process of setting up the MIS proposed.

### **5.6.1 Hardware Infrastructure**

#### **5.6.1.1 Servers**

Dedicated servers are required for Project Play by CW to set up in order to host MIS applications such as CRM, HRM and IMS. These dedicated servers serve as a facilitator to manage business-critical processes, ensuring availability of the MIS and improving response times from server to the end-user. We would suggest Dell PowerEdge servers which are known for their scalability and trusted reliability, where HP ProLiant provides enterprise-grade solutions for businesses that need enhanced server performance. These servers allow the organization to seamlessly access the MIS and navigate through it without taking up much computing resources. (Ballejos, 2024)

#### **5.6.1.2 End-user Devices**

In order for employees to have easier access to the MIS, end-user devices like desktop or tablet can be provided to ensure employees interact with MIS more efficiently. Considering the cost-benefit idea that we have decided, Lenovo ThinkCentre desktop are both cost-effective and serves its purpose along with powerful and advance specifications. Other than that, iPads can be provided for employees working on the floor, it ensures employees are able to keep track of the MIS portably while carrying out floor duties. These MIS integrated devices ensures the automation of smooth data entry, retrieval and processing process. (Bridge, 2023)

#### **5.6.1.3 Networking Hardware**

In the industry of entertainment business, networking hardwares are the backbone of Project Play by CW in terms of IT infrastructure. Equipments such as routers, switches, wireless access points, main server control room and many more are required to ensure stable and reliable network to maintain uninterrupted communication with the MIS.(Kanade, 2022). Tools such as Cisco Catalyst switches provide high-speed data trasnfer while Ubiquiti UniFi access points provides secure, widespread WiFi coverage. With the help of these networking equipments, Project Play can perform vital real-time tasks and ensure ongoing system operation without network failure.

#### **5.6.1.4 Backup Devices**

Every organization have to be equipped with at least a basic backup mechanism as a type of insurance to secure data storage, disaster recovery and data preservations. Backup Devices such as Synology DiskStation NAS devices are known for their excellence in creating centralized and redundant data storage. In the case of emergency or cyber attacks, backup devices ensures critical business information and data is preserved and recoverable.

## **5.6.2 Software Infrastructure**

### ***5.6.2.1 Operating System (OS)***

There are different OS required for distinct devices, Windows server OS will act as a host for MIS applications whereas client devices will be using Windows 11 or macOS for user access. The OS mentioned above ensures reliability and compatible nature to perform seamless operation of the MIS applications across various devices. (Shacklett, 2024)

### ***5.6.2.2 Application Software***

Zoho will be the main application software used across all the MIS. For CRM, Zoho CRM will be used to gather customer data such as feedback, insights, interactions with the MIS and provide immediate analysis.(Satish, 2024) As for HRM, Zoho People will be selected to automate employee shift scheduling, performance tracking and employee reward allocation. Next, Zoho Inventory will be used for the IMS. Zoho inventory excels at inventory checking which will be beneficial for Project Play to track gaming equipment and consumables in real time to prevent stock shortages.

### ***5.6.2.3 Database Management System (DBMS)***

Microsoft SQL Server and MySQL will be used to manage Project Play by CW's database which are cost-effective and user-friendly in terms of integration. These databases gather data allocated through the MIS and manage them by storing different types of data respectively which leads to smooth data retrieval and accurate resource management.

### ***5.6.2.4 Cloud Services***

Cloud services are increasingly popular nowadays due to its high ceiling scalability as it allows MIS applications to grow and expand exponentially along with the business. Microsoft Azure or Amazon Web Services both host servers which allows flexibility and ensures reliability. With this, the organization minimizes cost allocated for local servers and storage as cloud services provides the same benefits with minimal risk and robust services and scalability.

## **5.6.3 Network Infrastructure**

### ***5.6.3.1 Local Area Network (LAN)***

LAN essentially means that the network will be transmitted through LAN cable where it ensures constant connectivity and high speed data transfer. Ethernet cables such as Cat6 provide high speed connectivity for MIS performance.(Cisco, 2024) Especially in the entertainment business, Project Play has to implement LAN wherever they see fits as it reduces latency and supports high data loads.

### ***5.6.3.2 Internet Connectivity***

Fiber-optic internet connections along with 4G/5G backups provides high-speed broadband with redundancy that ensures online operations within the MIS can be carried out uninterrupted. This is especially important for cloud-based MIS solutions and data-syncing in real time.

### ***5.6.3.3 Virtual Private Network (VPN)***

VPN ensures that confidential information within the organization that has been transmitted and transported through the MIS will be protected even if accessed remotely. It provides secure access for MIS management or IT support outside the premises. (Cisco, 2024)

## **5.6.4 Data Storage & Backup**

### ***5.6.4.1 Storage***

Project Play by CW can use SSDs such as Samsung EVO SSDs to accelerate reading or writing speeds for performance critical applications within the MIS. They function to speed up data processing as well as the retrieval of data throughout the system hence enhancing overall performance of MIS.

### ***5.6.4.2 Backup Solutions***

It is important for any business to backup data everyday to prevent risks of data loss from hardware failures or cyberattacks. Acronis Cyber Backup in this case offers secure daily backups to both local and cloud storage which provides “double protection”. This process will also be automated to prevent human error.

## **5.6.5 Security Infrastructure**

### ***5.6.5.1 Firewalls***

Firewalls act as the first line of defense for the MIS against cyberattacks of any form by blocking unauthorized access into the MIS. Project Play by CW will be suggested to use Next-Generation Firewalls (NGFW) which offers an all in one package of cybersecurity as well as advanced threat detection and VPN integration solutions.

#### ***5.6.5.2 Encryption***

Encryption of data plays a huge role in cybersecurity and is essential for any IT infrastructure where it serves its purpose by encrypting data such as personal data of customers, and confidential business information. SSL/TLS encryption protocol ensures that data is unreadable to unauthorised parties.

#### ***5.6.5.3 Authentication***

Multi-Factor Authentication (MFA) will be implemented in this case as it enhances the security aspect of the MIS by requiring user to perform multiple verification processes.

### **5.6.6 Scalability Features**

#### ***5.6.6.1 Modular Architecture***

API integrations like Zapier allows smooth connectivity between each integration point of the MIS components. This architecture also facilitates and provides opportunities for Project Play by CW to implement future features such as VR gaming without disrupting the existing system.(Spryker, 2024)

#### ***5.6.6.2 Cloud-First Approach***

Cloud based systems are prioritised as they allow businesses to grow on their own demand. Systems such as Zoho CRM enables businesses to continuously upgrade and expand the MIS while avoiding the need to upgrade hardwares which reduces the cost needed for expansion and simplifying technical skills needed.

### **5.6.7 Training and Support**

#### ***5.6.7.1 Employee Training***

After implementing MIS into their existing system, Project Play by CW will have to begin provide training for their employees from professionals to ensure they can utilize the MIS effectively and correctly.(Seah, 2024) The training program should only focus on essential features such as managing dashboards and carrying out data analytics. With this, they can reduce human errors in the future of navigating the MIS and maximize the productivity of the MIS implementation hence improving user proficiency.

#### ***5.6.7.2 IT Support***

Project Play by CW will have to hire dedicated IT supports to ensure operations of the MIS are smooth and whenever issues or bugs within the system were to surface, IT supports could resolve the issue immediately, thus minimising downtime and supporting uninterrupted business operations.

## **6.0 Summary**

Project Play by CW, an esports entertainment center in Bandar Sunway established in 2024, caters to a multicultural student demographic with offerings like PC gaming, racing simulators, and PS5 consoles, and plans for VR integration. While its processes, including manual inventory management, feedback collection, and employee systems, focus on personalized service, they face inefficiencies and scalability challenges. To address this, implementing systems such as Inventory Management (IMS), Customer Relationship Management (CRM), and Human Resource Management (HRM) is recommended to enhance accuracy, efficiency, and customer satisfaction. Project Play by CW demonstrates how leveraging positive organizational politics, fostering a collaborative and inclusive culture, and adapting to internal and external environmental dynamics can create a thriving business. Informal alliances and mentorship among employees enhance operational efficiency, while leadership plays a critical role in addressing conflicts and promoting a balanced, accountable work environment. The welcoming culture prioritizes exceptional customer service, mutual respect, and employee growth, making Project Play more than a gaming center—it's a community hub. By navigating regulatory, economic, technological, and socio-cultural challenges, the business remains competitive and poised for growth. This strategic approach enables Project Play by CW to continually adapt, innovate, and meet evolving customer expectations.

[10 481 total words excluding headings, figures and citations]

## Reference List

- Arnold, T.J., Fang, E., and Palmatier, R.W. (2010) The effects of customer acquisition and retention orientations on a firm's radical and incremental innovation performance. *Journal of Academy of Marketing Science* [online]. 39, pp. 234-251. [Accessed 26 December 2024].
- Airswift (2024) *Training and Development in Business IT*. Available at: <https://www.airswift.com/blog/training-and-development> [Accessed: 28 December 2024].
- Bangia, M., et al. (2020) Sales automation: The Key to boosting revenue and reducing costs. *McKinsey & Company* [online]. Available from: <https://www.mckinsey.com/capabilities/growth-marketing-and-sales/our-insights/sales-automation-on-the-key-to-boosting-revenue-and-reducing-costs> [Accessed 27 December 2024].
- Bestar (2023) Setting Up a Cyber Center/Cyber Cafe. *Bestar* [online]. Available from: <https://www.bestar-my.com/post/setting-up-a-cyber-center-cyber-cafe> [Accessed 26 December 2024].
- Broadcom Inc. (2024) *Data Loss Prevention*. Available at: <https://www.broadcom.com/products/cybersecurity/information-protection/data-loss-prevention> [Accessed 26 December 2024].
- Cotter, N. (2024) How to Start a Profitable Cyber Cafe Business [11 Steps]. *Newfoundrz* [online]. Available from: <https://www.newfoundr.com/how-to/start-cyber-cafe-business> [Accessed 26 December 2024].
- Cygnis Media (2023) *Developing Management Information Systems*. Available at: <https://cygnis.co/blog/developing-management-information-system/> [Accessed: 28 December 2024].
- Danao, M. (2024) Porter's Five Forces: Definition & How To Use The Model. *Forbes* [online]. Available from: <https://www.forbes.com/advisor/business/porters-five-forces/> [Accessed 25 December 2024].
- DDI Development (2024) *How We Created a Management Information System*. Available at: <https://ddi-dev.com/blog/case/how-we-created-a-management-information-system/> [Accessed 28 December 2024].
- Eziefulue, A. O. (2022) The Role of AI in Automating Routine Accounting Tasks: Efficiency Gains and Workforce Implications. *European Journal of Accounting, Auditing and Finance Research* [online]. 10 (12). pp. 109-134. [Accessed 28 December 2024].
- Fuping, C. and Rongyu, L. (2024) Improvement and Replacement: The Dual Impact of Automation on Employees' Job Satisfaction. *Systems Practice in Social Science* [online]. 12(2), pp. 46-60. [Accessed 28 December 2024].
- F5 (2024) What is the Firewall Security? How to Protect Your Infrastructure. *F5* [online]. Available from: <https://www.f5.com/glossary/firewall-security> [Accessed 28 December 2024].
- F5 Networks (2024) *WAF vs NGFW: Which Technology Do You Need?*. Available at: <https://www.f5.com/c/landing/waf-vs-ngfw-which-technology-do-you-need> [Accessed: 26 December 2024].

Gaukler, G. M. and Seifert R. W. (2007) *Applications of RFID in Supply Chains* [online]. London: Springer. [Accessed 26 December 2024].

Garcia, C. (2024) Bargaining Power of Suppliers: Impact and Factors. *Konseye* [online]. Available from: [https://www.konsyse.com/articles/bargaining-power-of-suppliers-impacts-and-factors/#google\\_vignette](https://www.konsyse.com/articles/bargaining-power-of-suppliers-impacts-and-factors/#google_vignette) [Accessed 26 December 2024].

GeeksforGeeks (2024) *Comparison: Centralized, Decentralized, and Distributed Systems*. Available at: <https://www.geeksforgeeks.org/comparison-centralized-decentralized-and-distributed-systems/> [Accessed: 28 December 2024].

Gil-Gomez, H., et al. (2019) Customer relationship management: digital transformation and sustainable business model innovation. *Economic Research-Ekonomska Istraživanja* [online]. 33(1), pp. 2733-2750, [Accessed 27 December 2024].

Harvard Business School (2024) Institute of Strategy and Competitiveness: The Five Forces. Harvard Business School [online]. Available from: <https://www.isc.hbs.edu/strategy/business-strategy/Pages/the-five-forces.aspx> [Accessed 26 December 2024].

Hill, N. and Alexander, J. (2017) *The Handbook of Customer Satisfaction and Loyalty Measurement* [online]. London: Routledge. [Accessed 26 December 2024].

Hill, C. W. L., and Jones, G. R. (2012) *Strategic Management: An Integrated Approach* [online]. Ohio: South-Western Cengage Learning. [Accessed 26 December 2024].

Hochwarter, W. A., et al. (2020) Perceptions of Organizational Politics Research: Past, Present, and Future. *Journal of Management* [online]. 46(6). [Accessed 22 December 2024].

IBM (n.d.) *QRadar Security Information and Event Management (SIEM)*. Available at: <https://www.ibm.com/qradar> [Accessed: 28 December 2024].

InformationWeek (2023) *How to Avoid Security Concerns While Implementing Automation*. Available at: <https://www.informationweek.com/machine-learning-ai/how-to-avoid-security-concerns-while-implementing-automation> [Accessed: 28 December 2024].

InfoSec Institute (2021) *Top 4 Zapier Security Risks*. Available at: <https://www.infosecinstitute.com/resources/general-security/top-4-zapier-security-risks/> [Accessed: 25 December 2024].

Kambil, A. (2024) Revolutionizing reporting in the digital age. *Deloitte* [online]. Available from: <https://www2.deloitte.com/us/en/pages/finance/articles/revolutionizing-reporting-in-the-digital-age.html> [Accessed 27 December 2024].

Kelly, S., et al. (2020) Digital Supply Chain Management in the Videogames Industry: A Systematic Literature Review. *The Computer Games Journal* [online]. 10, pp. 19-40. [Accessed 26 December 2024].

Kong, S. (2020) Virtually few left as cybercafes cease to operate due to MCO. *theSun* [online]. Available from: <https://thesun.my/malaysia-news/virtually-few-left-as-cybercafes-cease-to-operate-due-to-mco-JJ4931597> [Accessed 25 December 2024].

Luenendonk, M. (2019) Competitive Rivalry: Porter's Five Forces Model. *Cleverism* [online]. Available from: <https://www.cleverism.com/competitive-rivalry-porters-five-forces-model/> [Accessed 25 December 2024].

Okeke, P. (2024) The Impact of Automation On Diagnostic Efficiency And Cost Reduction. *Forbes* [online]. Available from: <https://www.forbes.com/councils/forbestechcouncil/2024/10/18/the-impact-of-automation-on-diagnostic-efficiency-and-cost-reduction/> [Accessed 26 December 2024].

Malwarebytes (2018) *6 Security Concerns to Consider When Automating Your Business*. Available at: <https://www.malwarebytes.com/blog/news/2018/11/6-security-concerns-to-consider-when-automating-your-business> [Accessed: 27 December 2024].

Morsink, M. (2024) *Understanding the Impact of Business Transparency on Consumer Trust and Buying Intention*. MSc Thesis [online]. University of Twente. [Accessed 26 December 2024].

Paget, M. and Hessen, B. (2022) How to Build A Gaming PC, Plus Sample Builds To Get You Started. *Gamerspot* [online]. Available from: <https://www.gamespot.com/articles/how-to-build-a-gaming-pc/1100-6476963/> [Accessed 26 December 2024].

Project Play By CW (2024) Home. *Project Play By CW* [online]. Available from: <https://www.ppbycw.com/> [Accessed 24 December 2024].

Sadhu, A. K. R., et al. (2024) Enhancing Customer Service Automation and User Satisfaction: An Exploration of AI-powered Chatbot Implementation within Customer Relationship Management Systems. *Journal of Computational Intelligence and Robotics* [online]. 4, pp. 103-123. [Accessed 26 December 2024].

Satyendra (2020) Organizational Environment and its Impact on the Performance. *Ispat Guru* [online]. Available from: <https://www.ispatguru.com/organizational-environment-and-its-impact-on-the-performance/> [Accessed 26 December 2024].

Shabdar, A. (2017) *Mastering Zoho CRM: Manage your Team, Pipeline, and Clients Effectively* [online]. 1st Ed. New York: Apres. [Accessed 27 December 2024].

Spryker (2024) Modular Architecture Overview. Available at: <https://spryker.com/glossary/modular-architecture/> [Accessed: 28 December 2024].

TechTarget (2023) Unified Modeling Language (UML). Available at: <https://www.techtarget.com/searchsoftwarequality/definition/Unified-Modeling-Language> [Accessed: 28 December 2024].

TechTarget (2023) Waterfall vs Agile Methodology: Differences and Examples. Available at: <https://www.techtarget.com/searchsoftwarequality/tip/Waterfall-vs-Agile-methodology-Differences-and-examples> [Accessed: 28 December 2024].

UpGuard (2024) *Zapier Security Report*. Available at: <https://www.upguard.com/security-report/zapier> [Accessed: 25 December 2024].

VeraSafe (2024) *Data Privacy Automation: Pros, Cons, and Pitfalls of Streamlining Compliance*. Available at: <https://verasafe.com/blog/data-privacy-automation-pros-cons-and-pitfalls-of-streamlining-compliance/> [Accessed: 27 December 2024].

Voltonen, A. (2024) Google Form Surveys: What, How, and Alternatives. Trust Mary [online]. Available from: <https://trustmary.com/surveys/google-form-surveys/> [Accessed 22 December 2024].

Volkis (2024) *Security Design Flaw in Storage by Zapier*. Available at: <https://www.voljis.com.au/blog/security-design-flaw-in-storage-by-zapier/> [Accessed: 27 December 2024].

Weinstein, A. (2002) Customer retention: A usage segmentation and customer value approach. *Journal of Targeting, Measurement and Analysis for Marketing* [online]. 10, pp. 250-268. [Accessed 25 December 2024].

Zapier (2024) Products. *Zapier* [online]. Available from: [https://zapier.com/workflows?utm\\_source=google&utm\\_medium=cpc&utm\\_campaign=gaw-row-nua-evr-search\\_brand\\_alldev\\_prospecting\\_long-tail\\_d2-ads&utm\\_adgroup=brand\\_what&utm\\_term=what%20is%20zapier&utm\\_content=exclude&gad\\_source=1&gclid=Cj0KCQiAvbm7BhC5ARIIsAFjwNHsYctCPv\\_3yincgQZhorjRKZc8i3KrYwPt9ukbMdTo8O3kXRfM750QaApFQEALw\\_wcB](https://zapier.com/workflows?utm_source=google&utm_medium=cpc&utm_campaign=gaw-row-nua-evr-search_brand_alldev_prospecting_long-tail_d2-ads&utm_adgroup=brand_what&utm_term=what%20is%20zapier&utm_content=exclude&gad_source=1&gclid=Cj0KCQiAvbm7BhC5ARIIsAFjwNHsYctCPv_3yincgQZhorjRKZc8i3KrYwPt9ukbMdTo8O3kXRfM750QaApFQEALw_wcB) [Accessed 28 December 2024].

Zapier Inc. (2023) *Security and Compliance Overview*. Available at: <https://zapier.com/security-compliance> [Accessed: 27 December 2024]

Zapier Inc. (n.d.) *Zapier Documentation*. Available at: <https://docs.zapier.com/platform/home> [Accessed: 27 December 2024]..

Zoho CRM (2024) Features. *Zoho CRM* [online]. Available from: [https://www.zoho.com/crm/zohocrm-pricing.html?source\\_from=crm-header](https://www.zoho.com/crm/zohocrm-pricing.html?source_from=crm-header) [Accessed 27 December 2024].

# Appendices

## Appendix A

### Interview Transcript

#### INTERVIEW WITH MR CALVIN (Project Play by CW Business Owner)

Time: 5:00PM - 5:30PM Date: 16 December 2024

##### **Q1: Could you provide an overview of your business?**

The name of my business is Project Play by CW. This is a cyber cafe or we also call it an e-sports entertainment centre. I've been in operation for about seven to eight months. The overview of the business is that we are here to provide a safe, clean environment for young adults to have their entertainment. This is also the goal the business is working towards.

##### **Q2: Can you describe the key processes involved in running your business?**

There will be three different sides. **Supply Chain:** The first side is the supply chain, this is where we procure our parts. For large quantity items, we would email or contact the supplier directly, sometimes from overseas like China or Singapore. For those lower quantity items, we would source it locally. Right now we have no system to manage these supplier relationships and procurement processes. The process of the supply chain starts with determining what we need (i.e. the gaming equipment). I have a set of 20 PCs and 16 racing simulators, so we would build a single PC first, once we know all the components we need > then we will identify the brand name itself > then we would go online and search for their headquarters > and then ask them quote as (this would give us better pricing compared to sourcing from local dealers and distributors). For other general items, like cleaning or desk items, we would either search online or go to any physical retail stores.

##### **Additional Q: Do you use any sort of system to manage inventory? How do you know when you are out of stock?**

For now we are using regular excel to manage it (manually).

**Human Resource:** For our employees, we managed to recruit them from known contacts, sourcing from other entertainment centers to see if they are willing to come over to join us and also utilise their expertise and their experience. How we proceed with further recruitment, probably using two different options which are via QR code from our physical shop itself (for the part-timers, which are mostly students), this method will also help my customers be aware of it (that we are recruiting) and apply if they feel interested. As for the more experienced staff of the full-timers, this one is normally done by headhunting.

##### **Additional Q1: Do you also collect and keep track of the data of employees using excel?**

Yes.

**Additional Q2: Once the employees scan the QR code, what's the next stage?**

The QR code would lead to a questionnaire, which would gather some feedback from them. Once we filter the feedback that we would like, we would shortlist a pool of candidates to interview. After that, once we are keen on hiring them, then we would let them know about the offer.

**Q3: Can you share what methods you use to attract and retain customers?**

For customers, there are several categories with the first 1) being the membership system. We really push for membership here, and the customers get a benefit of receiving a slightly cheaper rate than the non-members of the other walk-in customers. So from this, they will feel attracted to returning customers as they would always have a more decent pricing compared to the other non-member customers. The second 2) is we always listen to their feedback on the games, like what games they play and what games they do not have available. So then I would definitely get the games within a couple of days. Then 3) would be the environment. You can see that by the design of the shop, there are resting areas for female customers or even for the customers on the waiting list to wait on the side; there are tissues and wet tissues for them to have their snacks and small food, we do not restrict it (only restricted in the gaming area). The overall ambience and the cleanliness of the area. So in a sense, we provide them with a resting area other than gaming. This is one of our visions when we started this business; we didn't just want it to be a gaming center but more of an overall hangout area for young kids.

**Additional Q1: How do you make sure customers give feedback?**

We have a QR code in front where they can scan to give their feedback and inform what games they play or want to play that the business does not have.

**Additional Q2: Do you serve food?**

We do not serve food, only drinks. But customers are allowed to bring in their own foods. It's just they cannot eat at the gaming area. We have provided spaces for them (to eat their food) and proper sanitisation equipment to clean up after themselves.

#### **Q4: What are the challenges you currently face in these key business processes?**

**Supply chain:** This would always be stock. Despite us going to the HQ company back in Singapore or China, many times with a single model or a single piece of equipment, they rarely have a bulk quantity for a single person to buy at an impromptu time. They can supply me but the timeframe would be extremely long due to the massive bulk that I would need to purchase.

#### **Additional Q1: How do you deal with delays in delivery?**

Thankfully at this moment the delays do not affect me anymore. The delays were mainly when I was required to set up the whole shop because I would need to set up the whole equipment. For now, based on past experience, we can foresee the problem and we would order in advance; so when the delays come in it would not affect the performance of our equipment.

**Human Resources:** The staff. As most of the staff are young, they tend to take more time to train due to the characteristics of their own. The availability of good candidates is also a challenge. Because this is a gaming center and is frowned upon by the previous generation, getting more good and experienced candidates to apply is hard.

#### **Additional Q1: How do you maintain communication with your employees?**

One is through WhatsApp and the other one is my own physical presence in the shop.

#### **Additional Q2: How do you arrange work shifts for your employees?**

At the last week of every month, we send out a google sheet where each of the individuals can apply for the shift that they prefer but ultimately it will be up to the manager to arrange their shifts. So they will be able to apply for shift availability. If they are not available then we will find someone else that is available. That is why the part-timers is the majority of my staff. This shift availability is all done manually

**Customer Relationship:** One of the major things would be the language barrier as the business is located at a very international educational center. There are Russians, Native Chinese, Pakistanis and other races so the language barriers prove to be quite a challenge. But thankfully most of them has a decent command in English.

#### **Additional Q1: How do you response to customer complaint**

We take them very seriously. First would be to identify the main root cause of the complaints; whether it is a hardware issue, software issue or staff issues or its a gaming issue. Because one thing about the service we provide is that we do provide them the equipment to game but we do not control the game itself. Certain games where their HQ is in the US, when their server is down we would be affected as well and for that we won't be able to do much for the customers. The best we would approach this scenario is to offer them a refund.

#### **Additional Q2: Is there a platform for them to send their complaints?**

Just the QR code.

## **Q5: Would you say your organisation has a distinct organisational culture?**

It's a very general retail culture that there is not much room for politics because the shifts are very tight, so they (employees) do not interfere with each other. The job description is also very simple compared to other retail shops.

### **Additional Q1: Is there any sort of culture you try to have your employees follow?**

Because my employees are mainly young adults, I always try to impart my corporate knowledge to them, letting them know what is called professionalism,, what can be done, what cannot be done, what is the grey area and what is not tolerable. I'm not too harsh on the consequences as they are young adults and the mistake they make is quite minor.

### **Additional Q2: Is there any culture to motivate your employees?**

We have a reward system. So when my staff break certain sales records, we come in to reward the staff. For signing in new members, we give them a commission scheme behind. Since I am working young adults, their vision is direct so the rewards should be direct. So every month there should be some sort of reward system for the staffs. For now fixed pay, commission would be paid via cash and the rewards are mostly trips or outing, depending on the sales number that they hit.

### **Additional Q3: Would you say this reward system impact the organisation?**

Definitely the staff would be happier working; they are also more driven and more motivated to reach for the sales target.

## **Q6: Do you think politics affect your business?**

The politics in my organisation is very minimal and does not really impede the functions of the shop.

## **Q7: How is the competitive rivalry/competition in this industry?**

In terms of competition and rivalry, it's still very minimal because during COVID many cyber cafes and entertainment centers closed down. As of right now the competition is extremely low even in this international student area.

**Q8: Do you foresee any threats of new stores opening up in the area?**

New stores are opening up but I don't really see them as much of a threat because one thing, the vision of my shop is fixed. I have the vision to move it forward not only as a normal cyber cafe or entertainment center but as a more relaxing place for any young adults to just hangout sometimes. That's why I chose not to maximise my earnings and provide them with a sitting area or resting area. So for me, the threat of a new shop, unless they intend to duplicate my shop, I am not threatened by them. And even if they try to duplicate, I am also not overly threatened because other than the environment we provide we also have the staff service.

This is also how the shop differentiate itself from the competitors.

Very high barriers to entry due to the capital involved in setting up the gaming equipment.

**Q9: What do you think about threats of substitutes?**

My business only need to follow the gaming industry. Last time we all did PCs, right now we're more into mobile games and PS5. Yes, my gaming equipment might be substituted but my business is following and involved accordingly (in the gaming industry trends). So right now, Racing simulator is in trend, maybe in the future it would be VR and Flight control; we already have some thoughts on that.

Internet cafes are not really a threat to the shop due to the vision the business have. So any one threat is not a concern.

**Q10: Do you think your consumers have a high bargaining power?**

Yes. Due to the location of the shop at the center of one of the highest educational centers in Malaysia, the purchasing power of the demographic here is relatively way higher than any of the other areas of the same age group.

We offer membership and good service, ambience to address this.

**Q11: Do you think your suppliers have a high bargaining power?**

Not really. We have over 100 suppliers worldwide that can supply us with our inventory/materials. So for me, if someone could not match my pricing, I can always switch to another one.

**Q12: Any idea in mind of which part of your business process you would like to automate?**

Definitely the errors of my staff. One thing 1) that can be looked at is the sales of drinks. Because overtime, I do see customers taking drinks without the notice of my staff. Thankfully, most of them always return to pay but I think this is something I'd like to improve in the near future. The second thing 2) is the daily closing of my sales; so my staff always have to do it manually and sometimes errors do occur because of human errors.

**Additional Q1: Do you think your business could incorporate IS to bring the business into a higher level?**

Definitely, the system where they could key-in themselves into the gaming rate would help reduce my staff error and any issues. So currently, customers have to log-in manually by the counter staff so introducing a new system where they could log in themselves would help a lot. Or any other issues where they can show availability of my gaming rate at the front desk at all times so it would help to improve the business. Currently, the staff would have to physically, manually check.

**Additional Q2: We have noticed that the PS5 gaming rate is currently not under the log-in system and is currently using a timing system, do you have any plans on automating this?**

For that we will use a pilot controller which would link to my server and front desk PC. So how this work is that once the customer intends to utilise the PS5, the built-in PC would key-in instructions for the customers.

## Appendix C

### Examples of MIS Systems for Project Play By CW to Implement

#### SCM - NoviSign (Digital Signage)

The screenshot shows two pages from the NoviSign website. The top part is the homepage with a banner for a 'BIG SALE 50% DISCOUNT' featuring a woman holding shopping bags. Below the banner is a section for digital signage software, with a 'Start a free trial →' button and a 'See it in action ▶' button. The bottom part is the pricing page, which compares four plans: Business, Business Plus (Best value), Premium, and Partners. Each plan includes a price per screen/month, total monthly cost, and a list of features. The Business plan costs \$18, Business Plus costs \$26, Premium costs \$44, and the Partners plan requires a minimum of 20 screens.

Plan	Price	Total per month	Features
Business	\$18	\$18	<ul style="list-style-type: none"> <li>✓ Easy drag &amp; drop editor</li> <li>✓ 50+ Widgets &amp; Apps</li> <li>✓ 500+ Customizable Templates</li> <li>✓ Images &amp; Videos</li> <li>✓ Slideshows</li> <li>✓ RSS Feed</li> <li>✓ Advanced Scheduling Playlists</li> <li>✓ Free Set-Up Assistance &amp; Training</li> </ul>
Business Plus	\$26	\$26	<ul style="list-style-type: none"> <li>✓ AI Digital Signage Image Creator</li> <li>✓ PowerBI &amp; Tableau</li> <li>✓ SharePoint, Google Drive, Dropbox Import</li> <li>✓ Amadeus Delphi Integration</li> <li>✓ Outlook &amp; Google Calendar</li> <li>✓ Device Manager</li> <li>✓ Ad Serving &amp; Proof of Play</li> <li>✓ CSV Import Capabilities</li> </ul>
Premium	\$44	\$44	<ul style="list-style-type: none"> <li>✓ Admin Management Tool</li> <li>✓ SSO</li> <li>✓ API</li> <li>✓ Create Accounts &amp; Manage Users</li> <li>✓ Set &amp; Control User Permissions</li> <li>✓ Content Publishing Approvals</li> <li>✓ Brand Kit Profiles</li> <li>✓ Sub Account Cloud</li> </ul>
Partners			<ul style="list-style-type: none"> <li>✓ 100% White Label Instance</li> <li>✓ Your Own Domain &amp; Branding</li> <li>✓ Admin - Manage Customers &amp; Users</li> <li>✓ Full Management Console</li> <li>✓ Build Your Own Plans</li> <li>✓ Wholesale Pricing</li> <li>✓ All Inclusive Plan</li> <li>✓ Full Partner Kit</li> </ul>

#### SCM - Zoho Inventory (SCM System)

The screenshot shows the Zoho Inventory dashboard. On the left is a sidebar with options like Dashboard, Inventory, Sales, Purchases, Integrations, Reports, and Documents. The main area has sections for Sales Activity (228 To Be Packed, 6 To Be Shipped, 10 To Be Delivered, 474 To Be Invoiced), Inventory Summary (Quantity In Hand: 10458..., Quantity To Be Received: 168), Product Details (Low Stock Items: 3, Active Items: 171), Top Selling Items (Newsworthy Cotton Cap: 171 pcs, Double Pom-poms cap: 45 sets), and Purchase Order (Quantity Ordered: 652.00). A video player overlay says "Watch the overview video". Below the main area is a mobile phone displaying the same dashboard interface.

The screenshot shows the Zoho Inventory pricing page. It lists four plans: Standard, Professional, Premium, and Enterprise. Each plan includes a price, usage details, and a trial button. The Enterprise plan also features a "Request a demo" button and two user icons.

MYR	STANDARD	PROFESSIONAL	PREMIUM	ENTERPRISE
<b>RM130</b> per organization / month billed annually	<b>RM350</b> per organization / month billed annually	<b>RM575</b> per organization / month billed annually	<b>RM1125</b> per organization / month billed annually	
<ul style="list-style-type: none"> <li>500 orders / month</li> <li>2 users</li> <li>1 warehouse</li> </ul> <a href="#">START MY FREE TRIAL</a> <a href="#">Customize your plan</a>	<ul style="list-style-type: none"> <li>3000 orders / month</li> <li>2 users</li> <li>2 warehouses</li> </ul> <a href="#">START MY FREE TRIAL</a> <a href="#">Customize your plan</a>	<ul style="list-style-type: none"> <li>7500 orders / month</li> <li>2 users</li> <li>3 warehouses</li> <li>2000 bins / warehouse</li> </ul> <a href="#">START MY FREE TRIAL</a> <a href="#">Customize your plan</a>	<ul style="list-style-type: none"> <li>15000 orders / month</li> <li>7 users</li> <li>7 warehouses</li> <li>5000 bins / warehouse</li> </ul> <a href="#">START MY FREE TRIAL</a> <a href="#">Customize your plan</a>	
✓ Composite items	✓ Everything in Standard +	✓ Everything in Professional +	✓ Everything in Premium +	

The screenshot shows the Zapier CRM pricing page. It asks "How many tasks per month do you need?" with a slider from 100 to 2M. It then lists four plans: Free, Professional, Team, and Enterprise. Each plan includes a price, features, and a "Try it free" or "Contact Sales" button. A "Learn about tasks" link is also present.

Best for basic use	Best for individuals	Best for teams	Best for organizations
<b>Free</b> Automate basic workflows with 100 tasks per month.  \$0 USD per month Free forever  <a href="#">Try it free</a>	<b>Professional</b> Automate advanced workflows with the full power of Zapier.  Starting from \$19.99 USD per month Billed annually  <a href="#">Try it free</a>	<b>Team</b> Build and manage automated workflows with your team.  Starting from \$69 USD per month Billed annually  <a href="#">Try it free</a> <a href="#">Contact Sales</a>	<b>Enterprise</b> Scale automation across multiple departments.  <b>Contact for pricing</b>  <a href="#">Contact Sales</a>
<b>Free plan features:</b> <ul style="list-style-type: none"> <li>Zapier automation platform</li> <li>Unlimited Zaps</li> <li>Two-step Zaps</li> </ul>	<b>Everything in Free, plus:</b> <ul style="list-style-type: none"> <li>Multi-step Zaps</li> <li>Unlimited Premium apps</li> <li>Webhooks</li> </ul>	<b>Everything in Professional, plus:</b> <ul style="list-style-type: none"> <li>Unlimited users</li> <li>Shared workspaces</li> <li>Shared app connections</li> </ul>	<b>Everything in Team, plus:</b> <ul style="list-style-type: none"> <li>Advanced admin permissions and app controls</li> <li>Annual task limits</li> </ul>

## CRM - Zoho CRM (CRM System)

Zoho CRM

Features ▾ Pricing Solutions ▾ Customers ▾ Resources ▾

## Sensational software, Sensible price

**Free trial**  
No credit card required

**Flexible contracts**  
Straightforward pricing, no lock-ins

**Minimal learning curve**  
50% faster implementation

**Intuitive UX**  
Better adoption, easier training

Monthly Yearly  **SAVE UP TO 34%**

Standard	Professional	Enterprise <span style="background-color: green; border-radius: 5px; padding: 2px;">MOST POPULAR</span>	Ultimate
<b>RM 62.92</b> <small>/user/month billed annually</small>	<b>RM 103.33</b> <small>/user/month billed annually</small>	<b>RM 180</b> <small>/user/month billed annually</small>	<b>RM 233.75</b> <small>/user/month billed annually</small>
<a href="#">START FREE TRIAL</a>	<a href="#">START FREE TRIAL</a>	<a href="#">START FREE TRIAL</a>	<a href="#">START FREE TRIAL</a>
All the essentials: 	Everything in Standard +	Everything in Professional +	Everything  <small>We're Online! How may I help you today?</small>
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### FEATURES

Sales Force Automation  
Canvas Design Studio  
Process Management  
Journey Orchestration  
Omnichannel

#### Analytics

Sales Enablement  
Performance Management  
Predictive Sales  
Customization  
Marketing Automation  
Team Collaboration  
Accessibility  
Remote work  
Mobile apps  
Security  
Developer Platform

## Analytics

The more your business grows, the more you need to know. Measure the performance of every sales activity, and break quotas down into achievable targets with Zoho CRM's reports, analytics, and forecasts.

[Learn more →](#)



#### Reports

Real-time reporting gives you insight into a variety of metrics such as sales trends, marketing campaigns, activity reports, and team performance.

[Learn more →](#)



#### Analytical Components

Create dashboards, analyze trends, stay on top of your key performance indicators, and know where you stand on your targets.



#### Capabilities

Take a look at the different ways Zoho CRM analytics can help your business grow by helping you make data-backed decisions.

[Learn more →](#)



## HRM - Square (POS)

[See plans ↓](#)

[Explore all tools ↓](#)

[Processing fees ↓](#)

[By business type ↓](#)

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## Plans for every stage

### Free

Sell in person, online, over the phone, or out in the field. No setup fees or monthly fees — only pay when you take a payment.

**\$0/mo.**  
+ processing fees

[Get started free](#)

### Plus

Get advanced features designed specifically for restaurants, retailers, or appointment-based businesses. Upgrade when you want to, cancel anytime.

**\$29+/mo.**  
+ processing fees

[See packages below ↓](#)

### Premium

Build a bespoke plan that meets the complexity of your operations. Custom processing rates may be available pending eligibility.

### Custom

+ processing fees

[Contact Sales](#)

## HRM - Zoho People (HRM System)


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**30-day free trial. No credit card required**  
 A complete HR solution for every business

Monthly  Yearly

ESSENTIAL HR <b>RM 5.42</b> /user/month billed annually	PROFESSIONAL <b>RM 8.75</b> /user/month billed annually	PREMIUM <b>RM 13.34</b> /user/month billed annually	ENTERPRISE <b>RM 20</b> /user/month billed annually	PEOPLE PLUS <b>RM 40.42</b> /user/month billed annually
<a href="#">SIGN UP</a>	<a href="#">SIGN UP</a>	<a href="#">SIGN UP</a>	<a href="#">SIGN UP</a>	<a href="#">SIGN UP</a>
✓ Employee Onboarding ✓ Employee Database Management	<b>Essential HR +</b> ✓ Attendance marking via web, mobile, and facial recognition	<b>Professional +</b> ✓ Performance Appraisals ✓ KRA and Goals Tracking	<b>Premium +</b> ✓ Cases (Employee Query Management)	<b>Enterprise +</b> <b>Zoho Recruit</b> Talent Acquisition