

# MANAGING CUSTOMER WORKFLOW VIA IDAN'S TRACKING SYSTEM

Aqif Haikal Razak<sup>1</sup>  
Mohamad Rahimi Mohamad Rosman<sup>2\*</sup>  
Muhamad Afiq Firdaus<sup>3</sup>

<sup>1</sup> Faculty of Information Science, Universiti Teknologi MARA Kelantan Branch, 18500 Machang, Kelantan, Malaysia (2024902917@student.uitm.edu.my)

<sup>2</sup> Faculty of Information Science, Universiti Teknologi MARA Kelantan Branch, 18500 Machang, Kelantan, Malaysia (rahimimr@uitm.edu.my)

<sup>3</sup> Idan's Designs Sdn Bhd, Perlis, Malaysia (idansdesigns@gmail.com)

\*Corresponding author: rahimimr@uitm.edu.my

## Article history

Received date : 9-3-2026

Revised date : 10-3-2026

Accepted date : 24-3-2026

Published date : 15-4-2026

## To cite this document:

Razak, A. H., Mohamad Rosman, M. R., & Firdaus, M. A. (2026). *Managing customer workflow via IDAN's tracking system. International Journal of Accounting, Finance and Business (IJAFB)*, 11 (64), 250 - 257.

**Abstract:** *Idan's Track is a web-based customer order tracking system developed for Small and Medium-sized Enterprises (SMEs) in the apparel and printing industry. The system addresses common operational issues such as a lack of order visibility, fragmented communication, and weak workflow traceability. It provides a centralized platform that allows customers to track their orders in real time using QR codes or order IDs, while staff updates progress across eight standardized production stages. Developed using the Waterfall model and implemented with PHP, MySQL, HTML, CSS, and JavaScript, the system improves transparency, accountability, and customer satisfaction. The findings suggest that a structured tracking system can significantly enhance operational efficiency and customer engagement for SMEs.*

**Keywords:** *Order Tracking System, Web-based System, SME, Apparel Industry, QR Code, Workflow Transparency*

## Introduction

### System Background and Context

Idan's Track is a web-based customer order tracking system developed to support small and medium-sized enterprises (SMEs) in the apparel and printing industry. The system provides real-time visibility of customer orders by mapping progress across eight production stages: Designer, Printer, Cutting, Arrangement, Heat, Sewing, Quality Control (QC) & Packaging, and Delivery. In many SMEs, order status communication is still handled through informal channels such as phone calls and messaging applications. This fragmented approach often causes delays, inconsistent record-keeping, and limited transparency for both customers and staff. As a result, misunderstandings and repeated follow-ups frequently occur, reducing operational efficiency. To overcome these limitations, Idan's Track serves as a centralized platform that standardizes order updates and maintains a clear, auditable progress trail. Customers can independently monitor their orders, minimizing manual inquiries, while staff

operate within a structured workflow that improves accountability, coordination, and productivity.

### **Problem Statements**

The current order management practices in many SMEs within the apparel and printing industry present several operational challenges that affect transparency and efficiency. Customers often lack real-time visibility into the pre-shipment workflow, which leads to frequent inquiries about order status. These repeated follow-ups increase communication overhead for staff and contribute to customer uncertainty.

In addition, order updates are commonly communicated through informal and fragmented channels such as phone calls, messaging applications, and handwritten notes. This decentralized approach raises the risk of delayed, inconsistent, or contradictory information, making coordination between teams inefficient. Production activities, including task initiation and completion, are also not consistently recorded or timestamped. The absence of structured documentation weakens auditability and accountability, making it difficult to trace issues, identify bottlenecks, or determine responsibility when delays occur.

Furthermore, many SMEs lack a standardized, step-by-step tracking structure across departments such as designing, printing, and sewing. Without a clear workflow traceability system, it becomes challenging to determine an order's current stage or identify the responsible team. Customers therefore rely heavily on staff for manual updates instead of accessing self-service progress information, which increases employee workload and reduces customer satisfaction. Collectively, these limitations contribute to low operational efficiency, as unclear workflows hinder effective task prioritization and scheduling, resulting in longer processing times, reduced throughput, and higher operational costs.

### **System Objectives**

Based on the analysis of the current operational challenges and in align with the goals of this project, the development of Idan's Track focuses on several key objectives aimed at improving order management and customer transparency.

#### **1. Development of a Real-Time Order Tracking Platform**

The primary objective is to develop a real-time, web-based order tracking system that enables customers to monitor the progress of their orders using a QR code or order ID. This function provides continuous visibility of production stages and reduces dependence on manual status inquiries.

#### **2. Establishment of an Integrated Admin and Staff Management Portal**

Another objective is to design an integrated portal that allows administrators and production staff to update, manage, and coordinate tasks efficiently across departments. This structured workflow supports consistent documentation and improves internal operational control.

#### **3. Enhancement of Communication and Transparency**

The system also aims to improve communication between the company and customers through automated and accurate order updates. By standardizing information delivery, the system increases transparency, customer confidence, and overall operational efficiency.

## Scope

The scope of this project defines the boundaries and focus of the development of Idan's Track to ensure that the system meets user needs and project objectives. The scope is divided into two main components: system scope and user scope.

### System Scope

The system scope covers the development of a web-based customer order tracking platform tailored for SMEs in the apparel and printing industry. The system focuses on providing real-time tracking across eight core production stages, from designing to delivery. It functions as a centralized platform for recording and updating order progress while excluding integrated payment or invoicing features and direct courier API connections. The system emphasizes structured workflow tracking, centralized data storage, and accessible order status visualization.

### User Scope

The user scope consists of three main groups. The first group is customers, who can independently monitor order progress through QR codes or order IDs without relying on manual staff updates. The second group is production staff, who use role-based portals to update and manage task progress within their respective departments. The third group is administrators, who oversee order management, user access and system configuration to ensure smooth and secure system operation.

### Literature Review

Several recent studies highlight the importance of real-time tracking systems in improving operational efficiency and customer satisfaction. Odesanya and Famosipe (2025) developed a cloud-based mobile application for outbound logistics distribution that enables real-time tracking of goods by logistics providers and customers. Their system, built using React Native, NestJS and MongoDB with integration of Google Maps API, demonstrated that cloud-based tracking increases transparency, delivery efficiency and customer trust. These findings support the direction of the current project, which similarly emphasizes real-time order tracking to enhance user experience and operational performance through modern web-based technologies.

Further empirical evidence was provided by Kencana, Surya and colleagues (2025), who quantitatively examined the relationship between online tracking systems and customer satisfaction at PT Berkah Prima Gemilang. Using statistical analysis tools such as Pearson correlation and Cronbach's Alpha, their study confirmed that effective tracking systems significantly improve customer satisfaction and loyalty. The research emphasizes that reliable tracking is not only essential for timely delivery but also plays a strategic role in strengthening competitive advantage by enhancing the overall customer experience.

In another related study, Carlina and Ayundyayasti (2021) developed an integrated order and production information system with an online tracking feature for Batik Balqis Collection in Semarang. Their prototype-based system addressed operational challenges in recording custom order details, monitoring production progress and calculating manufacturing costs. By combining a desktop production management system with a web-based customer tracking interface, the implementation reduced manual errors, streamlined workflows and improved communication. This study illustrates how integrating tracking functionality within an information system can significantly improve service quality and operational coordination.

## Benchmarking

The following table 1 shows the benchmarking comparison of the proposed system.

**Table 1: Product Comparison and Benchmarking**

| Feature                 | Trello   | AfterShip  | Idan's Track (Proposed System)  |
|-------------------------|--|--|---|
| Type                    | Web-based project and workflow management tool     | Web-based order and shipment tracking platform   | Web-based customer order tracking system  |
| Target Users            | Teams, manufacturers, project managers             | E-commerce businesses, logistics providers       | Manufacturing companies and customers   |
| Features                | Task tracking, progress boards, user collaboration | Multi-carrier tracking, notifications, analytics | Real-time order tracking with eight production stages, QR-based access, admin and staff portals |
| Automatic Notifications | Email and app alerts                               | Email, webhook notifications                     | SMS, Real-time status updates on web portal and customer tracking page                          |
| Customizability         | High (custom boards, plugins)                      | Moderate (limited to carriers and API features)  | Moderate (custom production stages, role-based portal access)                                   |
| Offline Access          | Yes (mobile app)                                   | No   | No  |
| User Interface          | Modern, card-based interface                       | Professional dashboard                           | Clean, intuitive dashboard for admin, staff, and customers                                      |
| Reporting & Export      | Basic activity logs                                | Advanced delivery and performance analytics      | Order summary, export to CSV, and QR link generation  |
| Ease of Setup           | Easy (web login)                                   | Requires carrier API integration                 | Simple setup on local or hosted web server  |
| Security                | Encrypted communication, access control            | API key authentication, HTTPS encryption         | Role-based login authentication, admin access control   |
| Performance             | High (cloud-optimized)                             | Scalable cloud infrastructure                    | Optimized for small-to-medium production operations   |
| Usability               | Very easy (drag-and-drop)                          | Moderate (requires configuration)                | Easy for customers and staff, moderate for admins due to advanced tools                         |

The benchmarking comparison positions Idan's Track as a specialized web-based customer order tracking system for manufacturing companies and their customers, setting it apart from

Trello, a general workflow management tool, and AfterShip, a logistics shipment tracking platform. Its core features include real-time order tracking across eight production stages, QR-based access, and dedicated admin and staff portals, which support a simple setup and high usability for small-to-medium operations. While offering moderate customizability for production stages, its reporting focuses on order summaries, CSV exports, and QR link generation, prioritizing internal production visibility over the advanced delivery analytics offered by AfterShip

### Interface Design

The following Figure 1 and 2 shows the interface design of the application, developed using PHP and MySQL database.

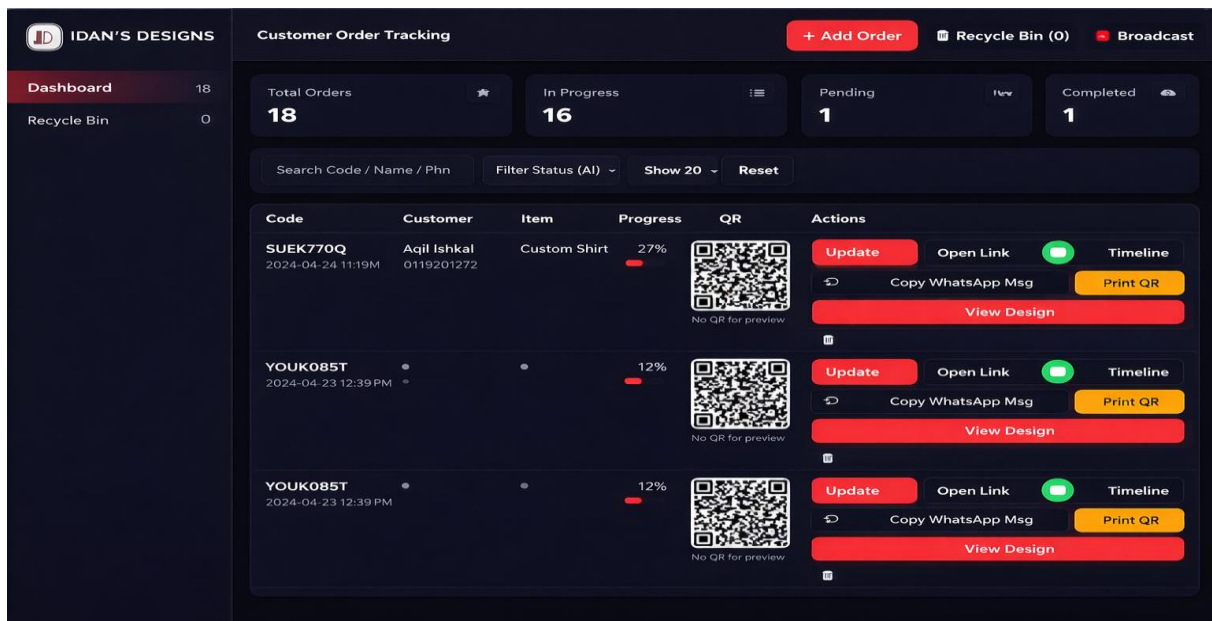


Figure 1: Dashboard

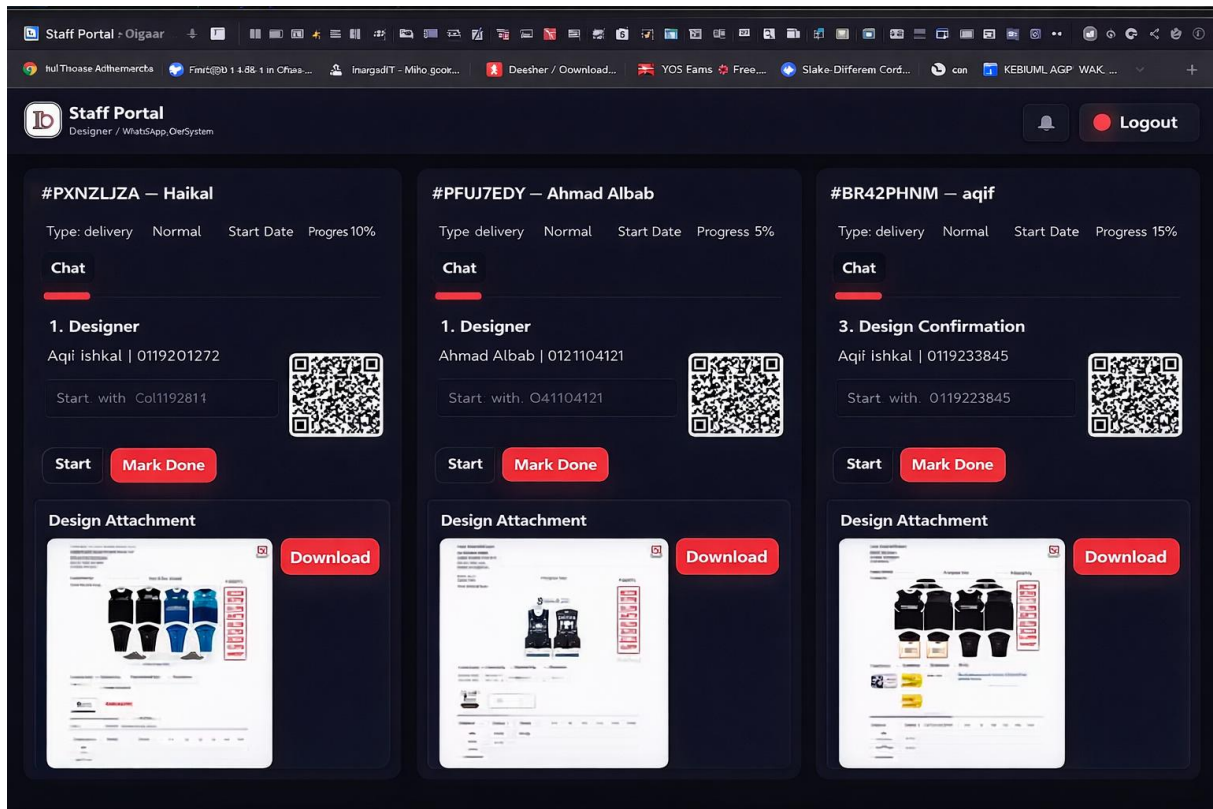


Figure 2: Admin Panel

### Database Design

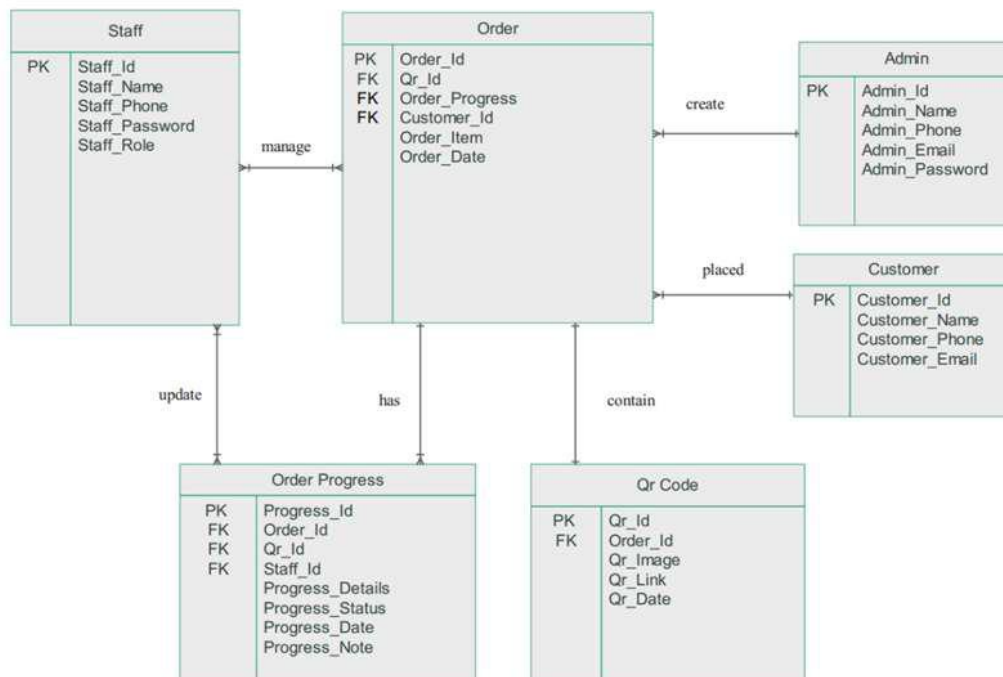


Figure 3: Database Design

Figure 3 shows how the system is organized and how each part works together in a simple and connected way. At the center is the *Order*, which contains important details like the item, date,

and links to the customer, QR code, and progress. Customers are the ones who place orders, while admins are responsible for creating them in the system. Staff then take over to manage and update the orders as they move forward. The progress of each order is tracked in the *Order Progress* section, where updates, status, notes, and dates are recorded. Each order also has a QR code that stores useful information like a link and an image for easy access. Overall, the diagram clearly shows how orders flow through the system—from being created, to managed, and finally tracked—by connecting all the key roles and components together.

### Conclusion

The development of Idan's Track shows that a structured order-tracking system can greatly improve workflow transparency and customer experience in custom apparel production. By using a quick response (QR) based public portal and Order ID lookup, customers can check their order status in real time across all eight production stages, reducing uncertainty and constant follow-ups. Internally, the use of standardized Start/Done updates in each department helps streamline communication, shorten waiting times, and ensure smoother job handovers.

The system also improves accountability through role-based access and detailed audit logs that record who updated each stage and when. These records, combined with exportable data in comma-separated value (CSV) format, support better monitoring of performance, identifying delays, and encouraging continuous improvement. Overall, Idan's Track offers a practical middle-ground solution more relevant than generic project management or parcel tracking tools, yet lighter and more affordable than full enterprise resource planning (ERP) systems.

### Acknowledgements

The authors would like to thank Universiti Teknologi MARA Kelantan Branch and Idan's Design Sdn Bhd for support and assistance throughout the student's internship.

### References

- Akturk, M. S., Mallipeddi, R. R., & Jia, X. (2022). *Estimating impacts of logistics processes on online customer ratings: Consequences of providing technology-enabled order tracking data to customers*. **Journal of Operations Management**, 86(6–7), 775–811. <https://doi.org/10.1002/joom.1204>
- Ang, Q. K., Sun, Y., Ng, W. C., & Teh, S. Y. (2025). *Delivering delight: The role of logistics service quality in customer satisfaction and repurchase intention in China*. **Issues and Perspectives in Business and Social Sciences**, 6(1), 193–207. <https://doi.org/10.33093/ipbss.2025.6.1.13>
- Carlina, S., & Ayundyayasti, P. (2021). *Developing order and custom production information system with order tracking system in Batik Balqis Collection*. **Keunis**, 9(2). <https://doi.org/10.32497/keunis.v9i2.2553>
- Carlina, S., & Ayundyayasti, P. (2021). *Developing order and custom production information system with order tracking system in Batik Balqis Collection*. **KEUNIS**, 9(2), 105–119. <https://doi.org/10.32497/keunis.v9i2.2553>
- Idan's Track. (2025). *Idan's Designs Tracking — custom shirts, lanyards & windflags*. <https://aqiftracks.fast-page.org>

- K.R. Aswathy et al. (2025). *PrinTrack: Real-time workflow monitoring and inventory tracking system (tracking techniques and system design)*. **International Journal of Research and Innovation in Applied Science**, X(10). <https://doi.org/10.51584/IJRIAS>
- Kencana, D. S., Munir, S. A., & Mahardika, Y. P. (2025). *Pengaruh sistem pelacakan online dan ketepatan waktu pengiriman terhadap kepuasan pelanggan*. *Jurnal Lentera Bisnis*, 14(2). <https://doi.org/10.34127/jrlab.v14i2.1760>
- Limon, G. Q. (2022). *Supply chain traceability in apparel manufacturing: A review of real-time order tracking, vendor management, and export visibility systems*. **International Journal of Scientific Interdisciplinary Research**, 1(01), 01–26. <https://doi.org/10.63125/dj9fgy65>
- Ngai Gui Shan, & Wan Ahmad, W. N. K. (2025). *The relationship between shipment-tracking and timeliness of delivery with customer satisfaction of Shopee Standard Express*. **Research in Management of Technology and Business**, 6(1), 75–86. <https://publisher.uthm.edu.my/periodicals/index.php/rmtb/article/view/20030>
- Odesanya, J. F., & Famosipe, O. G. (2025). *Development of a cloud-based mobile-app tracking system for outbound logistics distributions functions*. *Transportation Research Procedia*, 89, 42–50. <https://doi.org/10.1016/j.trpro.2025.05.046>
- Ricardianto, P., Parlindungan, P., Nugroho, W. R., & Ardiansyah, I. (2025). *The effect of e-tracking, logistics service quality and complaint handling on customer satisfaction (Case study at JNE Express)*. **Advances in Transportation and Logistics Research**, 7, Article 708. <https://doi.org/10.25292/atlr.v7i0.708>
- Samad, N. S. A., Muhamad, S. F., Zakaria, N. S., Bahari, N., & Ab Rahman, A. H. (2021). *Determinants of customer satisfaction toward Pos Laju Malaysia services during movement control order*. **Journal of Entrepreneurship and Business**, 9(2), 97–108. <https://doi.org/10.17687/jeb.v9i2.794>
- Sumrit, D., & Sowijit, K. (2023). *Winning customer satisfaction toward omnichannel logistics service quality based on an integrated importance-performance analysis and three-factor theory: Insight from Thailand*. **Asia Pacific Management Review**, 28(4), 531–543. <https://doi.org/10.1016/j.apmr.v.2023.03.003>
- Tee, Y.-Y., Ting, M.-S., Alexander, J. A., Tan, K.-Y., & Ooi, T.-K. (2025). *Customer satisfaction toward logistic service quality: A comprehensive analysis of key factors and strategic implications*. **International Journal of Academic Research in Economics and Management Sciences**, 14(3), Article 26022. <http://dx.doi.org/10.6007/IJAREMS/v14-i3/26022>