UNIVERSITI TEKNOLOGI MARA

INVENTORY MANAGEMENT SYSTEM FOR ANAS MOTO ACCESSORIES SDN BHD USING USABILITY HEURISTICS

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ABSTRACT

The development of an Inventory Management System for Anas Moto Accessories Sdn. Bhd. was the main objective of this project to enhance the current manual inventory process based on Usability Heuristics. Motorcycle spare parts and accessories were managed using manual records resulting in inaccurate stock levels, data duplication, information getting lost, inability to track stock movement and no centralized reporting for management. The goals of this project were to identify the system requirements, design and develop a web-based Inventory Management System based on Jakob Nielsen's Usability Heuristics, and test the functionality and usability of the developed system. The system was developed with the help of the Evolutionary Prototyping Model to validate, evaluate and improve the system by considering the feedback received. The system includes 3 user roles, which are Admin, Staff and Manager. For modules, the system has Inventory Records, Stock Adjustment, Procurement, Suppliers, Categories, Inventory History, Reports, User Accounts and System Administration. Jakob Nielsen's Usability Heuristics were used to ensure consistency, easy navigation, control of users, prevention of errors and understandable information presentation. This system was tested by three methods: system testing, expert testing and user testing by doing System Usability Scale (SUS) test. Three experts participated in the expert evaluation and 30 respondents participated in the user evaluation. An average SUS score of 76.92, which represents good usability, was obtained in the system. In general, this system has become a more streamlined, effective and intuitive tool for inventory management and business decisions. The following features can be added in the future, such as- Barcode or QR code scanning, Return function, Mobile friendly design, Stock forecasting, and so on.