Authentication Mechanism for Online Marketplace in Sri Lanka

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ABSTRACT

Purpose: This study aims to develop a comprehensive authentication system along with three step process verification for SMEs in Sri Lanka, enabling them to enter the global market with government certified legitimacy, while addressing issues of fraud and trust.

Design/methodology/approach: The methodology structured with three step verification boundaries as National Identity Card (NIC) verification, business registration (BR) verification, and address verification via government-issued utility bills on a web-based platform. In order to proof the legitimacy, the entrepreneurs will receive a government verified certificate to ensure that they are eligible to enter to the global market. The approach integrates several programming languages, development tools, and database management systems to create a robust, secure, and user-friendly platform. The primary technologies utilized include Laravel, PHP, JavaScript, CSS, and Visual Studio, with database management facilitated through WAMP server.

Findings: Through the findings of this study more than 95% of the sellers successfully completed the authentication process by providing valid front and back images of their NIC and BR documents. The remaining 5% were flagged for further review due to inconsistencies in their documentation. The verification process significantly reduced fraudulent registrations, leading to a safer and more trustworthy marketplace environment. The results confirm that a multi-layered authentication system, incorporating NIC, BR and address verification is effective in securing an online marketplace.

Practical implications: Maintaining an authentication mechanism from the government for the sellers to granting an opportunity for SMEs to enhance their marketplace globally and on the other hand the government would be in the safe side as they are able to ensure that only the legitimated parties are allowed.

Originality value: This study uniquely addresses the challenge of global market access for SMEs with a government-certified solution. The three-step verification process and specialized databases enhance its technical novelty. The results show how both sellers a government is advantageous on relying on this authentication mechanism.

Keywords: *Authentication, SMEs, Verification, Global Marketplace, Fraud Prevention an Investigating the Impact of Brand Equity on Re-Visit Intention of Super Markets in Colombo Dis*