

# **SMS Based Trading Portal For Sri Lankan Farmers and Traders**

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Specializing in Software Architecture

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# Declaration

I, A.M Samitha Amarapathy hereby declare that the work included in this dissertation in part or whole has not been submitted for any other academic qualification at any institution.

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## **Abstract**

In Sri Lanka, at present farmers are not getting competitive prices for their agricultural products as they are being exploited at the hands of a hierarchy of middlemen. They are also not acquainted with the modern technology to get timely and accurate market information on agricultural commodities. Further an efficient mechanism does not exist for framers in remote areas and traders to negotiate on trading deals as well as for payment processing. This research focuses on implementing a cost effective solution based on SMS messages that enable farmers to gain a higher profit margin for their crops by directly liaising with the buyers for the sale of products at complete prices in agro trading.

This research proposes the development of SMS Based Trading Portal with the support of a web client that aims to assist some administrative operations and user queries.

The proposed system is based on a typical stock trading system where the farmer advertises his products and trader then directly negotiate with farmer through bidding mechanism to achieve competitive advantage on either side. To facilitate the provision of an end to end comprehensive solution to addresses issues in agro trading, the system is also equipped with an efficient automated mechanism for payment processing and order transportation. Further more the system eventually interacts with stakeholders through automated alert service. It also exposes a web service as an integration point for third parties to interact with the system.

As per the test results system has demonstrated a good response time for all user queries maintaining a high accuracy in the responses when there was a reasonable data load. The automated farmer- trader offer matching and notification generation service proved to be well operating and the bidding process is well streamlined with the business requirement ultimately leading to automated fund transfer with high accuracy.

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