ABSTRACT

APPLICATION OF LIMITED BUSINESS INTELLIGENCE IN AN OBJECT ORIENTED SALES AND INVENTORY SYSTEM

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The role of Information Technology in any organization is to help the organization achieve its goals and objectives. Local retailers have expressed a need for software that is geared towards the unique way they do business. This cannot always be achieved by using off the shelf software solutions. These business requirements and strategic objectives help shape the development of Information Technology. This thesis involves the design, development and implementation of a prototype, based on an Object Oriented approach and modelled after a local business, R S concept, which is a supplier of parts and services to the local energy sector. The Core work includes the creation of a limited business intelligence module that allows the system to specify the mark-up or discount for each item tailored to individual client's purchasing patterns, the creation of Java based forms for the interaction with an MYSQL database and the use of Java RMI technology. Remote method invocation (RMI) allows the applications to call object methods located remotely, sharing resources and processing load across systems. Object-oriented programming languages, such as

Java, offer features whose application promotes the extensibility and reuse of the resulting program.

The software monitors business transactions at a customer level. This has the advantage of personalizing the customer's business relationship and gives the business a unique insight into the customer's business activities and buying patterns. This information along with the business rules was used to automatically rate customers. Customer rating was then used to automatically suggested or applied discounts or mark-ups.

Keywords: Object Oriented Development (OOD), Remote method invocation (RMI), Business/Artificial intelligence.