**Developing a New Conceptual Schema for the Business Process Component**

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***Abstract –*** Managers, market analysts, software designer, and others are eager to understand the future progression and dynamics of a market in order to optimize their business process model. This paper suggests a new approach to the conceptual schema of the business process, using MDA and component technology. The proposed method outlines the business process model using a highly abstract component-based specification, allowing for easy refinement and adjustment. The business process model can be updated by the designer through the use of model evolution rules. The design team can then refine the model according to the company manager's desired evolution scenario, guided by rules that facilitate this evolution.

*Keywords –* *Meta-Model, Business process, e-commerce business, MDA, business process component, flexibility.*

1. **Introduction**

The fast-paced business environment requires companies to continuously adapt their operations to stay relevant. This includes adjusting to technological advancements and changing customer demands. In order to be successful, companies must be able to quickly and efficiently respond to these changes in their environment. A business process is a visual representation of a company's activities, executed by individuals, groups, services, and organizations. The ability to adapt these processes is critical for managers at both organizational and operational levels[1].

The business environment in which companies operate is constantly changing, forcing them to adapt their processes to keep up with new technological developments and customer requirements. To stay competitive, companies must quickly and effectively respond to these changes. This requires the ability to monitor changes in their

environment and adjust their business processes accordingly.

Our goal is to provide a business process model based on encapsulated components, which can be refined using Model Driven Architecture (MDA) concepts. The use of business process components reduces data dependencies and allows for multiple implementations of the same component. Our approach facilitates the adaptation of the business process model by using techniques such as model refactoring and refinement.

The MDA approach involves the organization of development into different layers, from platform-independent models to platform-specific models. Our work aims to apply this concept to the business process model, allowing for refinement without reliance on code. The entire refinement process will be performed through model transformation [4],[12],[13].

However, there are limited methods available for adapting business processes. Existing approaches in the literature lack the necessary flexibility and broad vision required to handle varying circumstances. These solutions are also specific to certain domains and not easily transferable.

Our solution proposes a business process model that is composed of encapsulated activities, known as business process components. Each component