

## **New product development process and its impact on business performance in Nigeria:**

**Abstract** To remain competitive in today's hyper-competitive marketplace, it is important for manufacturing organizations to adopt new processes and systems for the development of their new products as well as improvement of the existing ones. This research proposes a new model that incorporates many factors that are found to positively influence the new product development (NPD) process and business performance and many other important parameters, which negatively affect the application of a new product development model and business performance, are also discussed. The research sample consists of 180 Nigerian manufacturing industries. The sample in this study are designed using convenience sampling method, 2 copies of the questionnaire were administered in each of the 180 manufacturing industries that served as sample. Out of the total sample of 360, 230 useable questionnaires were returned representing a response rate of 63.89%. Data were analyzed with the use of statistical methods such as factor analysis, correlation analysis and reliability analysis. Validity and reliability test indicate that all variables are valid and reliable. Based on the data analysis, the findings observed that although some of the results correspond to the previous findings. However, it is found that culture, strategy and the ability of the personnel affect not only the NPD business plan but also the business performance.

**Introduction** The society expects that all the manufacturing industries should continuously improve their business performance. To do this, all industries strive to operate and compete in an expanding and dynamic environment, and new product development is a vital source of competitive advantage. As posited by Gupta et al (1986), Edgett (1996) and Taylor et al (1994), Vourlioti et al (2008) technological evolution, the highly competitive environment and the varying (diversified) customer needs, have forced enterprises to search for and apply new product development processes that could improve their product unique characteristics, quality and business performance. According to Vourlioti et al (2008), Balbontun et al (2000), industries adopt its own standards and different approaches to design new product development process (NPD), depending on its size, types and number of products or services that it produces, as well as its business environment. Consequently some industries focus their attention on the improvement of the product's technical specifications, while others look for new product development processes that could reduce the development time and accelerate the production process and the business performance. Basically, there are two elements needed for an effective new product development – process and people. According to Techeuchi and Nonaka (1989), Wheelwright and Clark (1992), Prasad (1996) and Vourlioti et al (2008) in the last few decades the rule of the new product development "game" have dramatically changed. Industries have realized that high quality, low cost and differentiation strategies are not enough to lead them to business success (Kaplan and Norton, 2001). Pooltan and Barclay (1998). They posited that innovation should be focused on customers, while its success depends on how much innovation conceptualizes consumers needs and requirements. According to Calantone et al (2000s), Gevirtz (1994), there is no one right strategy for a company, rather for new product development, the different stages are allowed to overlap, and to accelerate the product development process right from the idea generation to commercialization. The product development process should focus on the following strategies, time to market, low product cost, low development cost, innovation and technology, quality, reliability and robustness services and responsiveness (Calatone et al 2000) techniques to speed cycle time while maintaining product

quality, and customer satisfaction. Positive business performance includes concurrent engineering, integratig marketing, research and development, teams and reducing product complexity (Gevirtz (1994) Droge et al (2000) Calantine et al (2000). The objectives of this study are The description of NPD processes, which constitute one of the basic success• components for a manufacturing industries. the determination of the NPD methods that have occasionally been used from• manufacturing industries in Nigeria The examination of the NPD practices and their importance for business• performance. In summary, the study examines the need for establishing new product development processes and investigates whether the adoption of such processes enhances industries competitive advantage and business performance. Specific factors affecting an enterprise goals / business success are examined and a new model concerning the factors affecting the NPD process is presented. Literature review (conceptual framework) According to Armstrong and Kotler (2005) a new product is a good, and service or idea that is perceived by some potential customers as new. New product can be referred as original products, product improvement, product modifications and new brands that the firm develops through its own research and development effort. According to David and Nigel (2001), new products and services introduction can be classified according to (1) newness to the market and (2) the extent of customer value created, resulting in the following types of new products. Transformational innovation: products that are radically new and the value created is substantial. Examples include CNN news channels, Automated Teller Machines (ATM) and digital cameras. Substantial Innovation: Products that are significantly new and that can create• important value for customers. Example include Kimberly – Clark Huggies /Nappies and Diet Colce Incremental Innovation: New products that provide improved performance or• greater perceived value (or lower cost). An example is a new Coca-Cola flavor. Booz and Allen and Hamiltan (1982), propose six types of new products based on the degree of newness to the firm and market. These includes Radical products: Products that are completely new to the world (10%)• New product line: Products that are new to the organizations but not necessarily new to the• markets (20%) Additions to product lines: Product that supplement an organizations established product• line (26%) Modified products are existing products that have undergone some major or minor• improvements (26%) Repositioned products: Existing products that are targeted to new market segments (11%)• Cost reduction products: New product that provide similar performance but a lower cost• (7%) According to Ewah et al (2008), new products are the life blood of companies, large or small. Proficiency in new product development can contribute to the success of many companies. If companies can improve their efficiency at launching new products, they could double their bottom line. It is necessary that companies developed new products to replace those that have become outdated or introduce completely new products that will be captivating before larger market. According to Bowen et al (1994), new product development is a fundamental process for an enterprise and constitutes a basic source for revitalizing and improving firm's competitive advantage NPD is a dynamic process, which requires the combination and exploitation of all the enterprise capabilities, in order for a new product with unique characteristics which will satisfy market needs to be produced (Marsh and Stock, 2003). According to Ewah et al (2008), new product can be defined as an innovation or modification or invention of an existing product to an extent that consumer perceive the modified version as a different or existing product just entering the market. In 1996, Lynn Garry et al developed model

of new product development success, and the model used a new technique called Benchcashing, which implies sending knowledgeable informant a series of cases and asking them to identify key factors. He and his colleagues uncovered ten critical determinants for successful new product technology and innovation. The factors include: - having a structure new product development process - having a clear share vision on the team - developing and launching a product within the proper time frame - refining a product after launch and having a long term view - processing the optimal team skills - understanding the market and its dynamics - securing top management support for the team and the team's vision - applying lessons learned from past projects - securing good team chemistry - retaining team members with relevant experience They also posit that, the product development process and a clear and shared vision, are the most critical factors for new product development success. While cooper and Kleinschmidt (1986) found that having a structure new product development process, including idea generation, screening and evaluation, testing development and launch has a positive impact on new product success. Argris and Schm (1978) also assert that having a shared vision of the project is important to new product success. Ewati 2008 posit that vision signal to the new product developers on team members on what the goal is and having a structured "NPD" process gives them or the company a frame work and partial environment for accomplishing the vision