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MANAGING NEW PRODUCT LAUNCH & DEVELOPMENT IN THE DYNAMIC EMERGING MARKET: A CASE STUDY OF SAUDI ARABIA *

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Abstract. This study aims at analyzing the mechanism of New Product launch and Development (NPLD) in two large Saudi Arabian organizations Almarai and Aujan, which are dedicated to the production and marketing of fast-moving consumer goods. The research has opted to utilize the Saudi Arabian established mechanism as a research tool for exploring NPDL methods with a special emphasis on the role of sales and marketing management acumen. In this case study, the information is collected from the employees in two gigantic companies, wherein they are involved in the NPLD process. There is a significant difference between the two companies in their functional adequacy and the efficiency and effectiveness of the NPLD mechanism. It has also an objective to do an analysis of the two companies in respect of scope and treatment in launching NPLD coping with the challenges surfaced in the wake of changing situation due to globalization. Despite the fact, that both companies adopted a formal Stage-Gate process, Aujan Beverage implemented this process more effectively than Almarai, perhaps owing to Aujan's greater expertise in using Stage-Gate methodology. This study emphasizes the importance of the role of sales and operations planning regarding collaborative demand forecasting. There is no doubt that leadership plays a pivotal role in ensuring the analysis, review, and improvement of NPLD process.

Keywords: new product development; operations planning; mechanism; Stage-Gate; enterprise resource planning; fast moving consumer goods

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1. Introduction

Launching a new product in the marketplace needs to be efficient and effective to an organization can have a competitive edge in the marketplace. In this present research, there are two Fast Moving Consumer Goods (FMCG) companies of Saudi Arabia taken into our consideration as a case study.

The first company used for research is Aujan. It was founded in 1905, 116 years ago in Bahrain. Aujan entered the FMCG industry in 1928. With its headquarters in Damman, Saudi Arabia, the company has operations across the world, particularly in the Middle East and African regions. Following a successful forging a partnership between the Coca Cola Company and Aujan Industries, Aujan Coca-Cola Beverage Company (ACCBC) came into existence in 2012 and its trademark is Rani Refreshment (RR) as a premier beverage brand including Rani and Barbican. ACCBC is an authorized manufacturer and distributor of its product in 15 countries across the Middle East and North Africa. Vimto is also a product of ACCBC. It's every product has a leading position in the industry: Rani in Juice Drinks, Barbican in malt beverages, and Vimto in cordial format. The company enjoys the prestige of direct presence in countries such as Saudi Arabia, United Arab Emirates, Qatar, Kuwait, Bahrain, Oman, Yemen, Jordan, Iraq, Iran Lebanon, Egypt, Libya, and Algeria.

The second company for research is Almarai Company. It was founded in 1977, 44 years ago by Sultan bin Mohammad bin Saud Al Kabeer. Its headquarters is in Riyadh, Saudi Arabia. It has operations in GCC countries, Egypt and Jordan. Its main products are dairy, yogurt, Label, juices, bakeries, poultry, and infant formula. It has adopted a business strategy to develop an integrated food supply mechanism, which satisfies its consumers with high quality, value for the money for food and beverage products. Its key brand is Almarai, which has a conspicuous presence in the GCC States. Almarai, as a brand, gives tough competition to major global brands.

In both companies, innovation in the features of products is a mechanism that is used to have an edge over their competitors, which are introducing new products in the market to improve their market share and negate the need to compete on a price parameter (Søndergaard, 2005; Wojnarski et al., 2010; Tanudiharjo et al., 2021; Hasani & Beqaj, 2021).

This is applied in the true sense in the case of distribution and supply of Fast-Moving Consumer Goods (FMCG) in the present competitive environment. Although the methodologies of various new product development (NPD) have evolved, the Stage-Gate, which is developed by Cooper (Cooper, 1990) is reasonably the best and most empirically applied and giving a competitive edge in the era of competition (Sommer et al., 2015; Sarangee et al., 2022).

The model presents a roadmap for the development of new product development subject to a common process adopted by companies that are leading to execute the NPDL to achieve the goal efficiently and effectively. The basic mechanism of Stage-Gate is based on five sequential activities called stages, as explained below (see Figure 1).

Stage-1: Concept generation

The first and foremost important step is to formulate ideas to launch a new value-added product; to design activities, to identify new business opportunities and the needed services and technology. It consists of a preliminary investigation of the practicality of the idea to get insight into commercial aspects.

Stage-2: Building business case

Under this stage, a comprehensive investigation is carried out involving primary and further research experiments both in the arena of the market as well, as technical realities, including determining the specifications and of product/service, and giving a definition to the project, reaching to project justification, and formulating the proposed plan for development.

Stage-3: Product development

Further, a detailed design and development of the new product or service is finalized, and operations or production processes for a full-scale production are planned.

Stage-4: Testing and validation

Then the stage-4 is devoted to testing or trials in the market; labs and plants decide for the whole operation of the proposed new product, naming the brand, formulating the marketing plans, and launching production/operations.

Stage-5: Product launch followed by a post-launch review

In the last stage, full-scale operation or production gets started commercially in the market for the targeted consumers.

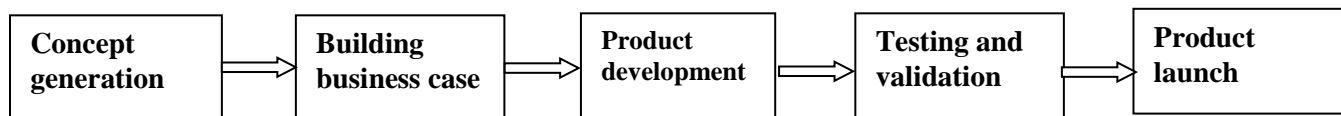


Figure 1. Stage-Gate model

Source: Adopted from Cooper et al. (1986). Referred in formalizing the front-end of the entrepreneurial process using the stage-gate model as a guide an opportunity to improve entrepreneurship education and practice by Bruce B. Barringer and Amy R. Gresock (2008)

Evaluation is needed at each stage; either be allowed through the gate to the next stage, or the gate should be closed and the process either further terminated or shelved. This research aims at examining the scope and treatment of sales and operations mechanisms (S&OM) in the NPDL mechanism. The objective of S&OM is to make major decisions to maintain a balance between supply and demand. The segmentation of the objectives of S&OP is to set a production date, determine production quantities, formulate the inventory policy, and forge counter steps to deviations from the plan of new product development. Sound S&OM decisions play a critical role in making NPDL launch successful; nevertheless, it appears to be not easy owing to uncertainty and unavoidable circumstances in the NPDL mechanism. Projected demand for new products bears challenging and even sometimes volatile to face the ripple effect of non-conformity with the actual future demand (Van Orschot et al., 2013; Simon, 2009; Marzi et al., 2021).

The decisions of S&OM also may lead among the executives of the NPDL project owing to meeting the tight deadlines and other different aspects to be accomplished. It is found that little research has been carried out emphasizing the role of S&OM in the NPDL process and that is why the very topic is given due place for research. It is pertinent to mention here that three major issues may be considered to launching a new product in the present market order. First, an introduced product must have an attribute that appeals to the marketplace. Second, a product is being at the expectation of customers after consuming them. The third one is to reduce the cycle time, idea generation to the delivery of products.

2. Literature Review

Launching a new product in the dynamic market bears a great responsibility for Fast Moving Consumer Goods (FMCG) based companies. NPDL strategy is a roadmap laying down the activities to grow market share in the competitive market. These activities include:

- Value addition in the existing product
- Extension of existing product lines
- Evolving new uses for existing products
- Identifying new markets
- Analyzing projected sales
- Launching new products in the market (Solomon et al., 1999)

For the foundation days, the Stage-Gate Model works as a roadmap for launching the product with its flexibility, e.g., a series of systematic parallel processing stages to minimize the project completion duration (Cooper & Edgett, 2015; Edwards et al., 2019).

With the time, the model has passed through different phases got refined and flexible to different situations and suitable different corners of the world. Cooper as an originator of the Stage-Gate process and his other colleagues has brought about these changes. Improvements took place in the domain of weakness like innovative management, administration, and decision landscape at the gate process using applied logic.

Flexibility is the hallmark that has led in the strive for improved outcomes and to give a speedy NPDL. The value addition of this project is to avoid complex processes to facilitate to undertake low complexity and risk with few gates' ways for speedy and better output. Value stream mapping plays a key role in the active improvement of the NPDL giving an edge on other competitors in presence through their market share. Innovative techniques are defined and framed and treated as good practices advocated by management scientists. Senior executives should give moral support to their Project Team and guide them on how to achieve the desired result in launching and developing "New Products" in the highly competitive scenario. Top management needs to bring about a system that is multi-disciplinary to evolve the desired skills and enhance functional adequacy and representative character in the organization. Avan R. Jassawalla and Hemant C. Sashittal (1999) shed light on the scope and treatment of the cross-functional team as a roadmap for NPDL; project team having coordination with representatives of Research & Development, testing, manufacturing, and marketing as well. It is pertinent to emphasize that there is a need to decide to launch finally the product, keeping in view its project results. Notwithstanding protecting rights of intellectual property, reasonable customers and suppliers deserve to have the insight of NPDL system adopted in the very strive. There is a need to maintain a middle path to bring clarity to the mind of other key players and manufacturers (Salmen, 2021). The aspect of digitalization reveals another important aspect, as digitalization could cause a cultural change of customers' behavior, customer tastes, distribution channels, and communication (Priede-Bergamini et al., 2020; Paluch et al., 2020). It is as a consequence necessary to inspect the influence of digitalization on the launch process and success factor.

It is also suggested of taking an effective and efficient supply chain to facilitate the availability keeping in view space and time. The high-quality decision-making process and systemization at a different phase of Stage-Gate process are having an indelible impact on the performance of the execution of business activities (de Guimaraes et al., 2019; Salvato & Laplume, 2020).

Involvement of high delegation of authority with desired expertise and knowledge is needed in designing and making a dynamic decision. The evaluation of performance NPDL under Stage-Gate mechanism should be clear

and crystal in order to take appropriate corrective measures to boost the sales. Wassim J. Aloulou (2019) suggested that managers of Saudi industrial firms should utilize a mix of aspects from several strategic orientations such as market and technology through entrepreneurial capabilities and resources that enhance higher levels of performance in terms of new product development.

In the changing scenario, a lot of business establishments are getting benefits by using Enterprise Resource Planning (ERP) system, which supports in controlling the cost and it appears to be very supportive in development and launchings new products. There is a need for consideration at various stages of NPDL process with concerted efforts. The early phased on launching products need an emphasis on product conception, development of the product, ensuring financial viability, and ascertaining the quality of products through rigorous testing. Goals need to be customer-oriented and have a representative character of features of the product and should be specific, measurable, achievable, and time-bound (SMART). It is needless to mention that Saudi Arabian FMCG market is highly under influence of the European market mechanism where the market is highly customer-centric as well as customer-oriented; the market thereof gives of customers' needs and expectations in determining its features. The consultation of key suppliers especially in agriculture-based ingredients that ensure the availability of raw ingredients, such as milk and fruit, is crucial. The present case study advocates that the early phase of development and launching new products plays a major role and at a very early stage, there is a need to engage all direct and indirect players to ensure the desired goal efficiently and effectively. At the very early stages, any design or logistic imperatives need to be gone under evolution and decision making rather than wrong decision backfires. It is also observed that one of the main factors of the success of NPDL is the better use of resources at the very early stage of the evolution of new products for the market. It is also suggested that any organizations need to bring about robust cross-functional coordination at every stage of product development and launching in the competitive market.

For a successful launching of a new product, planning plays a critical play. Lacuna in planning has a ripple effect on the production and sales of the goods. In NPLD, a study of project sales determines manufacturing the products, aimed to meet the market demand.

3. Research Objective

The objective of this research is to analyze the previous experiences of different organizations during the implementation of launching and developing a new product. Further, it is to synchronize the very first-hand experiences to pave the path for new ventures in the changing market scenario.

4. Methodology

To adopt the methodology with a strategy to study the subject research, the chosen path is the Stage-Gate process model from the past empirical studies. The Stage-Gate process model has been proved to be beneficial from a concept point of view as well as an implementation of the model that leads aspirants, students, engineers, executives, specialists from the very inception of pre-launch stages of evaluation of merits of new tangible or intangible products till the end of the desired result of launching the new product in the market.

An ethnographic approach is chosen to gather a sufficient amount of information and a descriptive, qualitative market research methodology for taking into consideration to understand the subject matter in context to the customer relationship to his or her environment (Baxter & Jack, 2008; Cooper & Edgett, 2015). The present case study is based on imperial interviews covering two chosen organizations in Saudi Arabia. The core foundation of the organizations is the FMCG in nature. The first organization is Aujan Coca Cola Beverages and the second one is Almarai milk company. Both FMCG organizations are well established in Saudi Arabian retail market scenario.

The participants in the study are comprised of supply planning specialists, marketing managers, and quality control executives. The participants have expressed willingness to interact and willingly come forward to contribute to this study. Both organizations have given the authors to carry out the study and permitted other departments to cooperate in this study. At Aujan Group industry, key managers were invited to participate in the interaction session to understand their experience in the development and launching of new products.

The objective of the interview was to access data related to the subject study:

- Obtaining the information if the NPLD process is effective and efficient in managing time keeping in view its making operation flawless
- Gathering the information if the NPLD process is dynamic in the execution of the plan and has scope to adjust to the imperatives
- Gaining an understanding mechanism in deciding the launch forecast
- Ascertaining the operational requirements for a successful NPLD mechanism

This research opted ABEF category selected keeping in view its relevancy in this competitive scenario:

- Leadership
- Strategy and Planning
- People
- Process
- System & Data, and
- Result.

Table 1 below reflects the resemblance between the ABEF categories and sales & operations planning imperativeness at different phases of NPLL process. For making NPLD process effective and efficient, each of the ABEF categories proves to be a guiding roadmap. The very analysis is the hallmark for leading interview questions for making this research useful for business organizations.

Table 1. Key S&OP concerns at each phase in the NPLD Process

	Concept	Launch	Post-launch
Leadership	Top-level approval on forecast process investment in system and training		Leadership of process-improvement methodology Management of accountability for accuracy of forecasts
Strategy/planning	Methodical translation of financial / and market driven strategic plans into operational requirements	Early involvement of suppliers and customers in the planning process	Consistent methodology for Evaluation for launch forecast accuracy and customer service expectation
People	Use of cross-functional NPDL project and S&OP teams		
Processes	Use of S&OP process including demand, supply, pre-S&OP and Exec. S&OP meetings		Methodology for capturing lessons-learned
Systems / Data	Data to support launch forecasts based on similar products Timely and accurate entry of Master Data to enable backwards-scheduling		Systems to measure performance metrics (Forecast Accuracy and customer service levels)
Results	Consistent methodology for tracking launch forecast accuracy and customer service levels		

The adopting of the Stage-Gate model has been beneficial for both, academia and practice. It has been mentioned in Stage-Gate Inc. aligning with Robert Cooper, the first conceiver of the model, 73 of North American companies have preferred to adopt the Stage-Gate model for new product innovation. Although, this model has also remained under continuous scrutiny and the majority of the studies have evaluated its values to be helping academia as well as entrepreneurs. Table 2 illustrates a list of strengths and the representative studies that advocate each strength.

Table 2. Strengths of the Stage-Gate methodology

Strengths	Representative studies
Well-organized framework for thinking through the new product development process	Cooper, 1990; Cooper et al., 2002; Paluch et al., 2020; Sulistiyani & Hutomo, 2021; Sarangee et al., 2022
Prevents poor product ideas from chewing up too much of a firm’s attention and resources	Cooper et al., 2002; de Guimaraes et al., 2019; Klingebiel & Esser, 2020; Sarangee et al., 2022
Increases the chances of new product success	Cooper, 1990; Sommer et al., 2015; Sarangee et al., 2022
Involves input and participation of employees from various functional areas in a firm	Cooper & Edgett, 2006; Cooper, 2016; Edwards et al., 2019
Holds specific individuals (often organized into a cross-functional team) accountable for the success of a new product or service idea	Cooper & Edgett, 2006; Edwards et al., 2019; Salvato & Laplume, 2020

Source: Formalizing the front-end of the entrepreneurial process using the stage-gate model as a guide by Bruce B. Barringer and Amy R (2008).

5. Findings

The findings cover the first-hand experience as well as the second-hand experience of Aujan Group and Almarai Company. Aujan leads in the implementation of NPLD mechanism in the first phase of globalization. The very mechanism-oriented methodology segmented the NPLD in five phases.

The idea generation is the ripple effect on customer need and market demand, the study of practicality encourages the development and launching team to further study the projected consequence of the very innovative business step to go inside the fact of financial viability of the project and to bring forth a possible negative aspect of the project keeping because of the commercial and market imperatives. A plethora of issues concerning logistics, availability of raw materials, accessibility of technology, and desired innovation were the subject of an address at Gate-2 of the practicality of the project. More comprehensive data and information of related activities to support the launch under the business study from the perspective of a very commercial functional adequacy. Launch occurred provided that the prerequisites have been met at a satisfactory level. The ERP system like SAP must have all the necessary inputs so that automation meets its end without any hindrance.

Aujan got the benefits of an NPDL mechanism based on Stage-Gate process since the inception of globalization when it faces the heat of competition. Two alternatives are available in the NPDL Navigator online tool that supports the NPDL process.

A 5-gate process was used for “Development and Launching of New Products” (NPDL). The 5-Gate process consists of five milestones:

- i) Exploration
- ii) Design
- iii) Commercialization
- iv) Production
- iv) Launch

The 5-Milestones are proven very helpful in improving the organization’s representative character, functional adequacy, and financial viability. They gave the organization the strength of being dynamic, robust, and resilient.

The Role of Leadership in the NPDL Gateway

Almarai Company has used the best acumen from the industry and its project leader was not from a traditional role mechanism, but the very assignment is given to someone who has empirical marketing experience as well as other related multi-faceted exposures. The leader of the project needs to give the vision to achieve the goal of successfully launching the product in the market. Rigidity in the implementation of the project minimized the scope and treatment of the very mechanisms in achieving the desired result. However, the specific mythology was adopted for processing every phase of the project; the process has become less rigid as it went through implementation and got the art of dynamism.

It has been experienced that this flexibility sometimes harmed the whole mechanism of the project that had been advocated by a top echelon management team who may not have enough experience to handle the ripple effects of the decision that may backfire on the result (Wei et al., 2021). In evolution and giving a final shape to the Stage-Gate process, it has consumed a substantial investment of time and energy.

The very process is a comprehensive mechanism that incorporates placing orders on suppliers, fixing priorities, and managing data, which may face unexpected hindrances for carrying out the initiative. For most organizations, it is a daunting task to measure the amount of success. Measuring the amount of success is imperative for identifying the mistakes and thereof rigorous improvement in the launching mechanism. Less focusing on traction in evaluating the process at different levels and taking corrective measures is owing to overwork and poor management in selecting alternatives. It is sometimes simply a lack of resources, poor project mechanism, which does not compatible with rigid adherence to the evaluation system; it may be as well as a lack of concerted effort in enforcement in line with the compliance of the fixed process, which comes from the high level of authority.

At Aujan Group, the Stage-Gate process was clear, crystal, well-formulated, and well understood; different works were assigned to different skilled executives with desired communication and coordination leading the concerted effort to reach the defined goal. In contrast, Almarai Company passed through continuous and rigorous improvements, taking benefit of its dynamics and laying out an adaptive Stage-Gate process. David Allan Earing, Director of Aujan Beverages claims: “Passing through the gates, these improvements are the ripple effect of rectifying and learning from mistakes during taking initiatives in launching and developing a new product. I guess it is quite systemized from the documentation point of view as well as empirical at each gate and having a scope of the evaluation, identifying mistakes and rectifying them leading to a desired goal”.

Strategy and Planning in NPDL Projects

At Aujan Group, the Gateway is best suited for its purpose. However, there were a plethora of peripheral activities surrounding the core issues of NPDL initiatives, which were perceived to be a complex business affair. As it is very systematic and naturally it is experienced as slow decision making. This meant that there were many bottlenecks in executing the very process.

Almarai has a variety of products in comparison to Aujan and operates in a more dynamic market and systemized environment. Aujan has a comparatively less complex system in launching new products than Almarai. A less complex system allows faster decision-making to achieve the desired goal in its scope and treatment claims Moosa Al Omran, Director at Almarai Operation in Riyadh.

Aujan has an edge over Almarai in the forecasting of the whole operation including projected sales than Almarai. At Almarai, there is a rigid methodology in the whole process from developing to launching the new product. The very methodology by and large has three phases, i.e., input, process, and outputs at each stage. The demand team plays a significant role from the very first stage. The operation team is involved in the planning process with its concerted and coordinated efforts.

People Involvement in NPDL Projects

At Aujan, the implementation of NPDL involves a large number of competent staff, especially with marketing expertise. This fact resulted in facing a bottleneck in the evaluation of NPL project after it gets launched in the market. The staff involved in the project believes that they face a daunting task to utilize our experience while redirecting the plan. In the wake of the shifting of staff involved in this project, the operation face problem as expertise does not get transited as needed. Sometimes staff holding a key assignment of the project leaves the company, and the company bears severe jolts of deputing staff with the same launching acumen.

Almarai strongly believes in the participation of all project managers in the decision-making of the launch and development of the product. One of the main assignments of the project manager is to meet all operational requirements and is to ensure that the supply network would work smoothly. The involvement of NPDL team needs dissemination of information and expertise to every concerned point of action.

Coordination of cross-functional teams is needed from different backgrounds like marketing, sales, finance and operations, and other related areas of involvement. This very kind of interaction during the development and operation of Almarai to get in action in time is allowed rather encouraged, simultaneously there are dynamic urgent changes owing to competitor strategy in the industry. In this process, the demand team needs to evaluate the projected sales at preliminary and based on their assessment; it plans to procure the raw materials, equipment, expertise, and finance as well to achieve the desired result.

The Stage-Gate Process

The operation executives both at Almarai and Aujan conclude that Stage-Gate is the mechanism that facilitates the operation team to implement the whole operation of development and launch of a new product making it financially viable. The mechanism proves itself so effective and it is encouraged and adopted for all segments of operation. An effective brainstorming about the landscape of launching the product is essentially needed, since barriers in communication may create serious ripple effects on the results expected. This fact cannot be simply ignored that there are variations in both fundamental and applied approaches in both the subject of study and organizations. However, there is also a fact that Aujan has a competitive edge in implementing the theory during the operation. The key points of operation in both organizations are mentioned below:

- Whole activities at every Stage-Gate process are well defined, crystal, and easy to be followed. Activities do not get carried out through each gate if the desired data are not available, at the same phase, the mechanisms give all the logistic supports needed for any member of the project team to compile these data into information useful for operation.
- The application of information at every phase is clearly described in the operation. It also works as a tool in forecasting in terms of requirements of raw materials, expertise, and projected sales.

- The whole process is a blend of dynamism and robustness that provides a good space for continuous improvement at every Stage-Gate process.

Data, information, and communication

Aujan uses SAP communication system to carry out its business activities. SAP has the features of performing different functions such as human resources, sales and distribution, procurement, fiancé, and production planning with a unique integration for coordination with different departments. There is no idea of doubt that SAP system works by feeding the data in an automated way, giving a command for the different tasks to be achieved, and gaining information with a fraction of time to take the appropriate decisions to achieve the target.

Almarai also uses SAP module designed to the needs of the organization which covers production planning, sales and marketing, and forecasting as well. Practically, SAP has a unique blend of integration of different areas of work and its flexibility dimension in executing the different tasks. The flexibility feature facilitates deciding on systemized pre facto as well as post-facto approvals in carrying out assignments. This value-added feature of flexibility proves to be effective in developing and launching new products in the market. Inflexibility paves the path of hindrance, which has a ripple effect on the whole project environment. Failure due to inflexibility has a profound negative impact on the entire mechanism of performance of a new product, which determines the achievement of the organization.

Evaluation of the Gateway

It is very unambiguous that the success of the operation needs evaluation at different phases of operation. This problem appears in maintaining consistency and measuring the performance of the benchmark to ensure a smooth evaluation of the NPDL project. Measuring the accuracy of a forecast to actual sales is also accountable over the team of S&OP although SAP modules.

Evaluation of operation at Almarai is measured in a more systematic, authentic, and comprehensive way than at Aujan. Success is measured based on the financial viability of the project after implementing NPDL and gaining the outcome. Accuracy in forecasting plays a more significant role at Almarai than at Aujan, following a well-articulated methodology for reaching an evaluation. Customer service has its place in the process of measuring the success of the project.

Conclusions

The purpose of this study is to analyze the NPDL process of both organizations keeping given the practices applied and the performance of the operation using the Saudi Arabian approach in the changing dynamic scenario of the present competitive market. Both organizations have adopted the innovative Stage-Gate process which gives them relevancy to the changing market scenarios. Both organizations have tasted the bitter test of failure in their striving to implement NPDL. In the wake of very bitter failures, they have adopted changes in their strategy. The logistics mechanism used at Almarai is more simplified than at Aujan. Nevertheless, it appears that Aujan is more particular about the methodology used by Almarai. There are two recommendations to be adopted as a strategy for better results in NPDL process:

- Smoothen the mechanism for “Forecasting” for demand managers, logistics executives, and Sales & Operation Planning managers for reaching a decision for launch forecast.
- Coordinate at a different level at different phases for adapting to the needed project framework to make this process more dynamic and resilient to make the whole project with functional adequacy and financial viability.

It is to reiterate that Aujan has faced many challenges in reaching the decision through processing available data, resulting in messing up to articulate production plan and material management through SAP and executing activities like raw material procurement and workflow planning owing to the lack of authentic data at the right time. It is to a flashback that Almarai has got success to manage the problem due to a lack of dependency among different segments of operation. The recommended solution consists of:

- Creation of master data records which may facilitate finalizing planning restricted to visibility after having processing costing.
- Feeding the authentic date in time into SAP would strengthen to specify the role of the data system in launching stage-wise through Stage-Gate process.

There is an iota of doubt that the literature suggests that NPDL process should come from top-down. If a process encounters a problem like underselling against projected sales resulting in a baffling situation for the planning and execution team, it is suggested that corrective action needs to be taken after analyzing the facts and figures and should be brought to the knowledge of senior-level management, ensuring:

- The due evaluation should occur at the scheduled time after launch;
- The discussion is needed of key metrics in the execution process;
- The coordination consists of a review of the strategy with recommendations;
- The recommendations need to be approved after the due test of practicality.

Last but not least, the synergy between the two organizations would be proved beneficial in the strive of their NPDL process, paving the path of enjoying a competitive edge over their competitors in the present dynamic emerging market of Saudi Arabia.

Limitations

The study has its limitations covering only two organizations, thus before reaching any conclusion treated as a generalization, caution needs to be taken.

References:

- Aloulou, W.J. (2019). Impacts of Strategic orientations on New Product Development and Firm Performances: Insights from Saudi Industrial Firms. *European Journal of Innovation Management*, 22(2), 257-280. <https://doi.org/10.1108/EJIM-05-2018-0092>
- Barringer B.B. & Gresock, A.R. (2008). Formalizing the front-end of the entrepreneurial process using the Stage-Gate model as a guide. *Small Journal and Enterprise Development*, 15(2), 289-303, Emerald Group Publishing Limited, 1462-6004 <https://doi.org/10.1108/14626000810871682>
- Baxter, P. & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *The Qualitative Report*, 13(4), 544-559. <https://doi.org/10.46743/2160-3715/2008.1573>
- Cooper R.G. & Edgett, S.J. (2015). Best Practices in the Idea-to-Launch Process and Its Governance. *Research-Technology Management*, 43-54. <https://doi.org/10.5437/08956308X5502022>
- Cooper, R.G. (2010). The Stage-Gate Idea to Launch System. Part 5. Product Innovation and Management. Wiley International Encyclopedia of Marketing. First published: 15 December 2010 <https://doi.org/10.1002/9781444316568.wiem05014>

- Cooper, R.G. (2016). Agile-stage-gate hybrids: The next stage for product development blending agile and Stage-Gate methods can provide flexibility, speed, and improved communication in new-product development. *Research-Technology Management*, 59(1), 21-29. <https://doi.org/10.1080/08956308.2016.1117317>
- Cooper, R.G., Crawford, C.M. & Hustad, Th.P. (1986). Winning at New Products. *Journal of Product Innovation Management*, 3(4), 307-308. <https://doi.org/10.1111/1540-5885.340307>
- Cooper, R.G., Edgett, S.J. & Kleinschmidt, E.J. (2002). Optimizing the Stage-Gate Process: What Best-Practice Companies. Do-II. *Research-Technology Management*, 45(6), 43-49 | Published online: 27 Jan 2016 <https://doi.org/10.1080/08956308.2002.11671532>
- de Guimaraes, J.C.F., Severo, E.A. & Severo, P.O. (2019). The Stage-Gate applied to new product development: the case of leading companies in southern Brazil. *Revista Geintec-Gestao Inovacao E Tecnologias*, 9(4), 5166-518. <https://doi.org/10.7198/geintec.v9i4.945>
- Edwards, K., Cooper, R.G., Vedsmand, T. & Nardelli, G. (2019). Evaluating the Agile-Stage-Gate Hybrid Model: Experiences From Three SME Manufacturing Firms. *International Journal of Innovation and Technology Management*, 16(8), Article Number 1950048 <https://doi.org/10.1142/S0219877019500482>
- Hasani, E. & Beqaj, B. (2021). New product development: from idea to market launch - evidence from Kosovo banking sector. *Ekonomski Vjesnik*, 34(2), 491-503.
- Jassawalla, A.R. & Sashittal, H.C. (1999). Building collaborative cross-functional new product teams. *Academy of Management Perspectives*, 13(3) <https://doi.org/10.5465/ame.1999.2210314>
- Klingebiel, R. & Esser, P. (2020). Stage-Gate Escalation. *Strategy Science*, 5(4), 311-329 <https://doi.org/10.1287/stsc.2020.0111>
- Marzi, G., Ciampi, F., Dalli, D. & Dabic, M.O. (2021). New Product Development during the Last Ten Years: The Ongoing Debate and Future Avenues. *Ieee Transactions on Engineering Management*, 68(1), 330-344. <https://doi.org/10.1109/TEM.2020.2997386>
- Paluch, S., Antons, D., Brettel, M., Hopp, C., Salge, T.O., Piller, F. & Wentzel, D. (2020). Stage-gate and agile development in the digital age: Promises, perils, and boundary conditions. *Journal of Business Research*, 110, 495-501. <http://doi.org/10.1016/j.jbusres.2019.01.063>
- Priede-Bergamini, T., Lopez-Cozar-Navarro, C. & Benito-Hernandez, S. (2020). Cooperation Behavior towards Innovation: Examining Differences between Family and Non-Family Businesses. *Transformations in Business & Economics*, 19, 3(51), 310- 328.
- Salmen, A. (2021). New Product Launch Success: A Literature Review. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*, 69, 151-176. <https://doi.org/10.11118/actaun.2021.008>
- Salvato, J.J. & Laplume, A. O. (2020). Agile Stage-Gate Management (ASGM) for physical products. *R & D Management*, 50(5), 631-647. <https://doi.org/10.1111/radm.12426>
- Sarangee, K., Schmidt, J.B., Srinath, P.B. & Wallace, A. (2022). Agile transformation in dynamic, high-technology markets: Drivers, inhibitors, and execution. *Industrial Marketing Management*, 102, 24-34. <https://doi.org/10.1016/j.indmarman.2021.12.001>
- Simon, R. (2009). New product development and forecasting challenges. *The Journal of Business Forecasting*, 28(4), 19-21.
- Solomon, M., Bamossy, G. & Askegaard, S. 1999. Consumer Behaviour: A European Perspective ISBN 10: 0137519834 / ISBN 13: 9780137519835
- Sommer, A.F., Hedegaard, C., Dukovska-Popovska, I. & Steger-Jensen, K. (2015). Improved Product Development Performance through Agile/Stage-Gate Hybrids The Next-Generation Stage-Gate Process? *Research-Technology Management*, 58(1), 36-46. <http://doi.org/10.5437/08956308X5801236>

Søndergaard, H. A. (2005). Market-oriented new product development: how can a means-end chain approach affect the process? *European Journal of Innovation Management*, 8, 79-90.
<https://doi.org/10.1108/14601060510578583>

Sulistiyani & Hutomo, P.T.P. (2021). Model of Product Quality Development on Marketing Performance in Semarang District. *South Asian Research Journal of Business and Management*, 3(6) <http://doi.org/10.36346/sarjbm.2021.v03i06.001>

Tanudiharjo, R.K., Yun, F.N.J., Joo, J.H.A. & Arokiam, I.C. (2021). Investigation of Factors Impacting Lean Implementation in the Indonesian Fast-Moving Consumer Goods Industry. *Operations And Supply Chain Management-An International Journal*, 14(2), 162-172. <https://doi.org/10.31387/oscm0450294>

Van Oorschot, K.E., Akkermans, H., Sengupta, K & Van Wassenhove, L.N. (2013). Anatomy of a decision trap in complex new product development projects. *Academy of Management Journal*, 56(1), 285-307. <https://doi.org/10.5465/amj.2010.0742>

Wei, Hu., Fuqiang, Zhao., Yu, Zhang & Tracy, Lu. (2021). green human resource practice and team innovation performance: roles of team boundary-spanning behaviour and responsible leadership. *Transformations in Business & Economics*, 20, 3C(54C), 585-604.

Wojnarski, M., Sebastian Stawicki, S. & Wojnarowski, P. (2010). System for Automated Evaluation of Algorithms in Repeatable Experiments. International Conference on Rough Sets and Current Trends in Computing, 20-29. Springer, Berlin, Heidelberg
https://doi.org/10.1007/978-3-642-13529-3_4

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