LOGISTIC DEVELOPMENT STRATEGY FOR PHARMACEUTICAL INDUSTRY FOLLOWING LEAN PERSPECTIVE: THE CASE STUDY OF PAKISTAN

Muhammad Umair Ilyas
Research Scholar
(KUBS)
University of Karachi
Karachi - Pakistan
umair.ilyaas@gmail.com

Dr. Shameel Ahmed Zuberi
Assistant Professor
(KUBS)
University of Karachi
Karachi - Pakistan
drshameelz@gmail.com

Dr. Muhammad Kashif
Superintendant,
University of Karachi
Karachi - Pakistan
drmkashif@uok.edu.pk

Abstract

Pharmaceutical strategies are typically unseen to patients but have a direct impact on how well healthcare is managed. This study focuses on creating a new strategy to further develop the coordinated elements supporting the pharmaceutical divisions. The study focuses on the administration and network of stores for pharmaceutical materials used in this sector in Pakistan. This study investigates previous studies to develop an improvement strategy to computerise the systems used in the distribution center and outbuildings. The study explores the impact of the disagreements between pharmaceutical organizations on the business and their commitment to the development of strategies along with recognizing the best-known strategies of pharmaceutical development and their benefits. It also offers best practices and develops a structure of understanding with respect to the pharmaceutical companies in Pakistan. The study finds that the pharmaceutical

development and its situation in Pakistan is exceptionally unique and rapidly evolving. The study formulates new strategic proposals within the broader political context of Pakistan and its pharmaceutical industry.

Keywords : Pharmaceutical Industry, Pharmaceutical sector in Pakistan, Strategies, Development, Pharmaceutical products.

Introduction

Population increase leads to an increase in the responsibility of the health system. In order to ensure the level of care required, the strategies behind everything need be productively planned to ensure continuity of management. The number of patients in Pakistan are increasing that also leads to an increase in operations due to the pharmaceutical industry (Abbasi et. Al., 2018). Coordinated Operations is essentially the direction and system of an organization that attempts to create a mechanism to move a product or data between a starting point and a brand name to meet the requirements of a customer or organization. Manufacturing network management in the pharmaceutical industry extends this structure to connect to each of the cycles. The costs of strategic pharmaceutical activities are invisible to patients, but invisible to most other pharmaceutical industries. Society as a whole knows nothing about what is going on in the various purchasing departments, general distribution centers, extra space, request and delivery systems, etc., which entail a huge amount of costs and somehow never understand how to get satisfaction, especially from the clinical faculty. A wide range of systems for routine pharmaceutical operations has been described by previous studies (Abdirahman &Tarique, 2020).

The pharmaceutical industry is applied in several areas of Pakistan. The pharmaceutical industry procedure is essentially a plan that follows the rule of perfect timing (JIT), which in its fundamental incarnation means constantly getting as close to zero inventory as possible or brilliantly creating the perfect thing. In order to improve coordinated operations, it is not surprising that the pharmaceutical administration is using the most innovative innovations among management-supported data, support for free transport, computerized transport, and advances in programmed recognizable evidence. Strategies are certainly a part of the pharmaceutical industry that is constantly innovating and evolving, therefore, keeping up with innovation is an undeniable requirement 100% of the time (Ahmed et. Al., 2021).

This study presents a plan to improve the existing materials management strategy used in the pharmaceutical industry, using advanced types of coordinated operations that a pharmaceutical industry of this level should conduct. The most important attention is paid to the methods of administration of medicines and devices for the individual expansion of the focus of healing. In addition, the purpose of this study is to empower the pharmaceutical industry by focusing on the coordinated operations that underlie the provisions of the pharmaceutical industry to achieve superior improvement that will be considered by the rest of the pharmaceutical industry, providing

superior patient satisfaction, along these lines comes down to the idea of mechanization systems (Ahmed et. Al., 2020).

The whole venture mastermind comes down to the individual desire for a strategic pharmaceutical spirit as a response to the need to further develop pharmaceutical improvements - in other words, to the need to more organized computerize pharmaceutical associations, make them faster and more coordinated, and more practical. In addition, pay attention to the understanding that something needs to be corrected from the base in order to work for the overall result, without disregarding the planned future (Akbar et. Al., 2020).

Literature Review

By the 1960s, several multinational corporations began to operate in Pakistan, there were few local manufacturers, but everything that was considered medicines was imported. Since that moment, the modern scene has changed especially (Farooq et. Al., 2020). Pharmaceutical industry in Pakistan is completely controlled by the government from approval of tolerances to evaluation and finally retail. This is part of the image of the organizational and legal structure that oversees the territory. The main piece of legislation governing this area in Pakistan is the Narcotics Act 1976. Prior to this, despite the fact that some TNCs actually had assembly houses, there was no regulation of pharmaceuticals in Pakistan. By this act, the State Welfare Service was transferred to the district administration (Hassan & Ahmad, 2018).

So far, the main actors in the pharmaceutical industry that we have known have been controllers (DRAP and PCP) and manufacturers, including TNCs and nearby firms. Manufacturers have two other branches: the Bureau of Pharmaceuticals, which mainly works with TNCs, and the Pakistan Pharmaceutical Manufacturers Association (PPMA), which works with neighboring firms. The administrative organizations of public authorities are referred to as "controllers". Shippers, traders, wholesalers and retailers are also involved in the manufacture or importation of a medicinal product. Each has its own advantages, and some, like retailers, have their own relationships (for retailers, this is the Association of Pharmacists and Chemists) (Jiskani et. Al., 2020). In the end, the remaining two important partners are customers and the local clinical territory, which includes pharmacists, specialists, and (public and private) medical clinics. These partners are shown in above fig along with their connections (Khan et. Al., 2016).

Secondly, these organizations can survive on the rent from the state, which is about 33% of the market. An additional chance is that they can piracy from Pakistan to other countries such as Afghanistan. It is clear that there are various problems in the pharmaceutical industry that can be found in leasing, but which are not suitable for depreciation strategies that are hostile in the current political setting (Li et. Al., 2018). For example, due to the fact that public display of products is prohibited, pharmaceutical firms mainly sell their products to specialists. This has led the

relationship between pharmacist and physician to become a value-based relationship where, as a compromise for the approval of their branded medicines, the practitioner is rewarded with benefits such as travel abroad or gifts such as vehicles and mandatory air systems (Luján-Ornelas et. Al., 2017).

This training benefits professionals and pharmaceutical agents by providing over-help, increasing drug resistance, and increasing patient cash flow. While this may be perhaps the biggest rent in the field, cultivating a politically possible opponent of the humiliation strategy is unimaginable in light of the fact that this training is overly decentralized and geared towards dealing with level anti-corruption strategies. Therefore, we did not consider this lease. In addition, there are various rent issues that cannot be resolved for various reasons, such as delivery to Afghanistan, supply of drugs without a solution, responsibility for families with political connections (Mahar et. Al., 2020). Accordingly, we limit our study of rent to the three problems identified earlier. Using experience from meetings with key sources and supporting information where appropriate, we separately explored the idea of intra-appraisal rents, substandard medicines, and public procurement. Our research is carried out along the following three lines (Malik et. Al., 2020).

In an underdeveloped country like Pakistan, it is rare for a patient to buy a full package of a product. Retailers usually sell individual tablets, containers, and ampoules due to the moderation issue (Rehan et. Al., 2020). However, this does not matter in the case of liquids, injectables and balms, where the patient clearly needs to purchase a full package, organizations try to ignore the decorations on the package and trace them only to the extent that it meets administrative requirements, and requirements for product reliability, since this is nothing more than a constant purchase of medicines. The increase in the number of products has become the latest model of pharmaceutical advertising. Organizations support their products in a variety of ways. Some organizations, such as MSD and Novartis, have also introduced free home delivery of medicines and placed restrictions on repurchasing medicines (Rehan et. Al., 2020).

Research Methodology

Research Philosophy

Interpretivism serves as the study's guiding research theory. Based on analytical conclusions and observations made using the data at hand. This research philosophy is used as it might explore additional subjective information on the research issue by adopting a different perspective on pharmaceutical industry in Pakistan. The research philosophy of interpretivism aids in analysing the most appropriate information gathering regarding pharmaceutical products that creates an approach towards problem solving.

Research Approach

When approaching a research subject deductively, a conclusion is logically inferred from a broad theme or notion. The broad notion used in this study is the competition among pharmaceutical companies and the broad notion is used to contextualize the competition in Pakistan. The role of organizations in the development of pharmaceuticals is developed logically from a number of premises. Academics contend that when all of the premises are established as true, the conclusion of deductive inquiry is true. Therefore, the study uses deductive approach to explain logistics development strategy for pharmaceutical industry in the context of Pakistan.

Sampling:

The study uses thirty research articles from authentic sources in order to collect data. The population size is thirty and research papers, articles, authentic databases are included in the population of this study. Twenty different journals are explored to find the relevant information on this topic.

Data Collection

A thematic approach of pharmaceutical development is used to collect data for topic title, abstract and literature review from reliable secondary sources. Online document evaluations was used for this qualitative research's data collecting. Data from the currently available study materials have been gathered using legitimate journals and books. Secondary data from earlier studies had been analysed in this study to gather information to highlight various conclusions using qualitative data on pharmaceutical performance in KPK and other major provinces of Pakistan. An analysis is performed after collecting data and conclusions are made after doing the analysis of pharmaceutical industry in Pakistan.

Ethical Considerations

This study avoids viewpoint bias and the use of false data. The majority of the time, publications contain out-of-date, unreviewed, or illegal articles, however, the use of such articles is avoided in this study. There is not a single out-of-date research publication or article used in the literature review for this study. Similarly, none of the papers that were prohibited from public access were utilised in this study.

Analysis

New products create a significant impact on competition among the pharmaceutical companies. The development of new products in the pharmaceutical industry is a much more complex cycle than in other industries. The costs of development, research and development, participation in a charitable service, obtaining natural materials - all this makes this task impossible for any

advertising group. The premise is based on what the organization needs and what it needs to achieve. An organization looking to break into a different class of products may want to opt for an almost more modern atom to get a constructive result in a clinical vocation, which doesn't really matter to organizations that come with particle brands anyway which are promoted by several different organizations. Furthermore, if a company needs to strengthen one of its current portfolios, even the more experienced part can simply supplement the current coverage (Saeed et. Al., 2015). Demonstration of possibilities became the main fundamental theme. Participants viewed advertising as a product opportunity, value, place, and progress in product lifecycle management. The critical terms of this research grew out of information: demo exercises, product placement, labeling, product life cycle programs, evaluation, competition and market, transactions, organization of time-limited exercises, and evaluation. The results of the study showed that demonstration groups control promotion activities and characterize the promotion of mixed models of development products, new product deliveries and business products. The INT1 member responded to advertising teams that "do statistical research, generate metrics, target parts of the industry as a whole and target deals, select customers, describe delivery plans, and demonstrate mixed models." INT2 member registered market research needs, open door market potential, market position and separation, product placement, labeling, pricing models, forecasting, organizing time-limited exercises, communication, focusing on customers and contracting, studying candidates; organization of the life cycle and features of the promotion of mixed models and repayment models (Wang et. Al. 2021).

The food situation included food credits and licenses. Members recognized product quality, well-being and viability as key product attributes. The participants responded that the demonstration groups are in demand by the public due to the constant visible contribution of high quality, safe and attractive products. The INT1 member announced "continuous outstanding contributions of high quality, safe and powerful products at a cutthroat price." The INT2 member elaborated, " it needs to start with the attributes of the product: product quality, well-being and adequacy (Weiss, 2019). The INT3 member has demonstrated "quality and safety products at a serious price through our distribution channels." Conclusions are merged with supporting sources of information about the product. Berger et al (2016) described safety, viability, integrity, side effects, and method of organization as elements influencing vital aspects of treatment choice. Fazal et al., (2020), further investigated the quality, safety, and adequacy of treatment choices.

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distribution channels (Wogayehu et. Al., 2019). Pharmaceutical natural substances, unlike other industries, must be obtained carefully. While issues can be related to quality, cost, and availability across industries, there are many different variables that need to be investigated in relation to pharmaceutical products. One of the main issues that needs to be resolved is the "patent status" of the atom. A patent is insurance given to an organization for a specified period of time during which it can compensate for the heavy use caused by research and development. Licenses are usually issued for a long period from the moment of use (Wogayehu et. Al., 2019).

However, as a practical matter, an organization in a country like Pakistan should not exclude protected products because of their legal status (Singh et. Al., 2020). When a company is dealing with a patent, it must examine the prerequisites for production and the likelihood that offices are available or not. Pharmaceutical fixtures may require exclusive office space such as humidity/temperature/humidity control. The number of brands of similar particles in searches, the number of players, the recognition of the atom among clinical experts, future opportunities, etc (Song et. Al., 2016). One of the exceptional qualities of a pharmaceutical product is the need to constantly adapt to standard limits. Each drug has its own standard attributes such as disintegration time, use time, actual appearance and design reliability, etc. Specific timeframes (usually 3-6 months) to ensure sufficient product properties. This is an important question because the organization must be especially careful to ensure that the organization they want to acquire guarantees cost consistency and consistently meets their needs. In addition to leading the testing of pilot clusters, most organizations also have a sophisticated supplier evaluation program (Wogayehu et. Al., 2019).

Assembly of an experimental cluster or reliability study is a kind of recreational practice in which pre-assembly is performed in real conditions. Natural substance, binding and assembly equipment is something very similar that will then be used in business production (Saeed et. Al., 2015). Whenever a patent on a brand-name drug is terminated, the freedom of choice in the marketplace is terminated, allowing non-exclusive products to use the definitions and offer products at a lower price. One of the methodologies that can be used to solve this problem is to reduce the cost in direct competition with generics. However, another option, a serious approach to valuation, may lead firms to focus on those parts of the market that are not cost sensitive, and thus maintain or increase costs (Song et. Al.,2016).

Similarly, this is not an option in regions where drug spending is targeted, as in Europe, but may be the case in countries such as the Americas. After all, the market is divided into those areas where there are either long-term plans for playing with clinics, or spending on administrative general practice. According to Saeed et al., (2015), this approach can reduce cost flexibility, which means that expanding the range of the price list is an ideal solution. Basically, when there are line extensions or new plans, this can also lead to higher cost levels. In essence, this means that advertising strategies should be considered as a whole and not as separate approaches to display.

Ultimately, evaluation strategies need to be aligned with ad hoc and demonstration strategies (Zafar, 2016).

The expensive rooftops were laid and approved by the government of Pakistan around 1976 when the rules governing the area were first introduced. While spending controls on modern products are undoubtedly unprecedented in Pakistan, drug spending controls have been used elsewhere in the world. This cost control (either in the form of roofs or through benchmarking) has been used in a variety of settings such as Colombia, India, and over 20 European countries. The Standard Money Hypothesis recommends that in cutthroat business sectors government intermediation should not be fundamental, as costs will be balanced at an ideal level of balance. This has certainly been found in the created nations, where value orientations have weakened the powerful value struggle. First, to establish access, moderation, and control of drug use, which, as noted above, constitute a critical degree of complete well-being for some families. Secondly, the generics market is competitive both in terms of price and brand. As firms compete in value and in respect for the brand, cost rivalry is reduced (Zhang et. Al., 2015).

There is a notable non-exclusive market in low wage countries on the grounds that in an environment where workmanship can be patchy due to impotent regulations, trademarks can be used to denote quality and separation of products. Thus, these two circumstances are a compelling motive for cost control in emerging economies. Surprisingly, there was a value freeze in Pakistan from 2001 to 2013 despite a significant increase and depreciation of homegrown money (the Pakistani rupee). With these twists and turns in the search, there are clearly tenants to catch and rent in search of open doors. These annuities are recognized below after we have initially described the valuation system in more detail (Ahmed et. Al., 2020).

Brand value, that is, the reputation and reputation of a product, develops under a patent guarantee where there is no traditional rivalry. Undoubtedly, the increase in direct-to-consumer advertising, at least for physician-recommended drugs, has expanded the scope for time-limited strategies. Basically, by enhancing the quality contrast between labeled and conventional products in light of cost control or comparative added value indicators such as fewer side effects due to detail retention as demonstrated by Khan and Siddiqui, (2018). Undoubtedly, the work of Khan and Siddiqui, (2018) also suggests that effective promotion, as in the case of patent expiration, can reduce the gangster effect of non-exclusive products (Akbar et. Al., 2020). Whenever a non-exclusive product reaches ANDA, it is given 180 days to advertise the product only. This means that whoever enters the market first can make huge profits. In any case, the test is that, for a few days, current branded products are also allowed to advertise their own traditional medicines without further authorization. Thus, there is a hole that can be filled by subsidiaries that manufacture and market generics respectively, or they give permission to new non-exclusive firms, arrogating to themselves control of a piece of the pie that will somehow go to new market entrants (Bajwa et. Al., 2020).

Without a doubt, this is a typical strategy for established firms that need to keep up with their share of the industry as a whole, as well as capitalize on and compete with new players in the field. It has been seen that the development of non-exclusive products, a methodology used effectively in many stores, offers significant potential for increasing revenue. While these non-exclusive products from labeled pharmaceutical organizations may affect the benefits derived from their labeled products, the net effect is that the organization maintains a revenue stream. This is important from a manager's lifecycle point of view, as one should not focus on retaining one product, eventually working on a portfolio of products to create business value (Barbieri & Santos, 2020). Although not a long-term strategy, it does keep a few traditional firms in the market for a while and therefore may be a practical strategy for capturing a piece of the entire labeled pharmaceutical industry in the short term. Another approach to advertising strategies is to promote products into over-the-counter products rather than drugs.

In Khyber Pakhtunkhwa (KP), senior authorities said their testing showed that 3-5% of medicines may be of poor quality. In any case, a senior pharmacist at a medical clinic in Peshawar said this was probably an underestimate due to inadequate research and surveys. It could also be an understatement due to paying for medical monitors, a sort of minor depreciation that has been explained in the Pakistani media and is likely to have far-reaching implications. Despite the low level of substandard drugs reported by the Pakistani authorities, the manufacturers we interviewed did not believe that any of the 750 or more authorized firms would intentionally supply substandard drugs (Fazal et. Al., 2020). As noted by these manufacturers, while some organizations may make compromises, such as using cheaper packaging or less sugar in syrups, none of them will purposefully use a less dynamic pharmaceutical fixative than the base part. Counterfeit (counterfeit) medicines are certainly supplied to Pakistan, but this may be a limited feature occurring on a limited scale (Hafeez & Akbar, 2015) Many respondents suggested that provincial markets, and possibly low-income metropolitan communities, could be dominated by low-quality recipes, including counterfeit ones. In truth, one lead producer described how they train their advertising team to pay close attention to potential counterfeiting and constantly test tests in the markets and close the store and manufacturer of counterfeit medicines. In any case, they last did so north of the previous year in January 2018, suggesting that the prevalence of such falsification is limited. Other companies are doing comparative research as well, but we don't have data to suggest that this is a broad and consistent feature (Hassan & Ahmad, 2018). Given the unmistakable episodes like the one on PIC and the ideas of the respondents and in the writing of low quality recipes that prevail, especially in the markets of the country, we cannot completely rule out this lease. However, evidence that medicines are of poor quality is currently negligible. In this capacity, in the next period of this research project, we expect to collect drug tests from the country's advertisements and test them in a certification laboratory. This will allow us to convincingly prove the extent of substandard medicines (or shortages in this department) in Pakistan and whether this affects the general well-being (Khan, A. and Siddiqui, D.A., 2018.

Information sharing and strategic supplier partnership in supply chain management: a study on pharmaceutical companies of Pakistan. (Khan et. Al., 2018).

Recognizing the limitations of this work, it is proposed to collect robust industry data on the adequacy and cost-effectiveness of each of the three defined areas of pharmaceutical development. In particular, to live up to the promise of this work, there must be a short, medium and long term strategy that covers each of the three areas and where each is powerful. Accordingly, either a contextual study or an industry-wide review would be prudent to demonstrate where the best strategies lie for the sack of development (Song et. Al., 2016). In particular, the impact on part of a number of patent extensions, conventional settlements and licensing agreements would benefit from additional research. In addition, a better understanding of how these firms choose their pharmaceutical development strategies will also expand the information available. As for the usual difficulties, there is an expanding scheme for new non-exclusive firms that can benefit from the research of established firms after the patent expires. Thus, in any future study, it is proposed to conduct a more detailed study of the direction of top-down strategies (Tajdar et. Al., 2015).

Furthermore, stronger evidence is needed for the value of future research and reformulation of lifecycle management strategies. Although the results of the articles reviewed in this study indicate that this can be a compelling method of gathering existing information and combining it with the further development of innovation and pharmaceutical research, again, the experimental evidence base remains limited and therefore more is needed details on specific issues, the impact of these strategies on the life cycle of labeled pharmaceuticals (Talevi&Bellera, 2020). Finally, while promotional strategies appear to offer the best potential for profiting from an enterprise beyond the expiration of patent, specific methodologies cannot be explored as a whole in the scope and assets of this work. Accordingly, and in agreement with Farooq, (2019), it is proposed to carry out work that is directly focused on experimental information on social issues regarding the adequacy of advertising strategies recognized in this work. Combining the advertising hypothesis of brand value and product sharing should be the focus of this study as it will determine where and how well-known firms can focus on demonstrating their MOL stage to further expand it and reduce the effect of the EOL stage. So far, limited evidence has been found of any fundamental rent arising from the production of substandard recipes in the Pakistani market. Also, India may have a higher level of substandard medicines manufactured in Pakistan, which is then sold to business sectors with an inefficient administrative system, such as in Afghanistan (Zafar, 2016).

The manufacturer must have told us that a large number of manufacturers in Peshawar accidentally sell their drugs in neighboring Afghanistan to avoid tax collection. Without intentional drug testing, we can appreciate this exchange and the nature of drugs (Hedberg et. Al., 2017). It follows from this study that the scope of devaluation-hostile strategies in this space is limited due to the small potential benefit for development. While a strategy that expands the targeted private attack model would be politically feasible, this approach should not be considered due to limited rent.

However, this area requires more scrutiny, testing, and disclosure, so it may be worth exploring a strategy that expands incentives for better leadership (Jiskani et. Al., 2020).

Conclusion

This study showed that in the development of pharmaceuticals, as in any other discipline, things change more slowly. The situation in Pakistan is exceptionally unique and rapidly evolving. The moment we considered the local pharmaceutical industry, everything truly changed. The analysis points out that there are only two primary groups of pharmaceutical drugs: over-the-counter medications and prescription products. The distinction is made based on whether the product is advertised directly to Pakistani consumers or for medical use. Focus asserts that an organization's product portfolio has four crucial components: breadth, length, depth, and consistency. The breadth of the product range denotes the different product lines that the organisation promotes; the length of a product line denotes the number of products an organisation runs through its product lines. The depth of product combination indicates the number of forms offered by each product. The pharmaceutical sector in Pakistan has not been competitive on the global market, trailing comparable nations like India by a wide margin. The industry's structure, in which the top 100 companies compete for the remaining 3% of the pie while receiving 97% of it, clearly demonstrates a degree of distributional inefficiency. These factors, together with stringent spending restrictions and extended spending freezes, show that the sector is gaining control over rents. Our assessment of high rents, substandard medicines, and public fund acquisition processes revealed several suggestions for an initial strategy.

The motivating forces are distorted in relation to drug evaluation. With the ultimate goal of keeping costs reasonable, the Pakistani state is imposing strict controls. However, they have the unfavourable impact of either decreasing patient access to necessary medications owing to shortages or raising patient spending on medications because new, more expensive medications are hitting the market. Patients occasionally encounter both. To address this issue, the pulses must be rebuilt. After some time, the purchase of pharmaceuticals by normal legislators stabilises, and rents are declining, but there is still potential for improvement. Positive developments started occurring after Pakistan switched to a majority government in 2008 and again in 2010 when the territories were given additional independence. The confrontation between regions, caused by institutional changes, during the last ten years or somewhere in this area has led to the further development of absorption schemes. There is still a critical extension for improvements and for this objection to be unambiguous, especially in relation to obtaining and evaluating essential medicines. In the next phase of our research, we hope to formulate these new strategic proposals within the broader political context of Pakistan and its pharmaceutical industry. This additional investigation, along with conversations at the center with relevant partners, will then be used to develop strategies for a possible enemy of degradation to reduce harmful rents.

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