

Complementary role of Project Management to the Marketing Activity: An empirical study of an Indian Pharmaceutical Company

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Abstract— The core competence of the global Pharmaceutical giants lies in the two functions –Marketing and Innovation (R&D). Accordingly they formulate strategies to bring new drugs to the market to cater to the critical unmet medical needs. The success of these firms hinges on the speed and the consistency with which the new products in the Research & Development (R&D) pipeline get commercialized. In order to achieve the twin objectives of ‘speed to market’ and ‘cost effectiveness’, the global innovator companies (*Clients*) outsource the non critical activities to firms (vendors) in *India, China and other emerging economies* to bring down cost and time. This is known as the “*Contract Research and Manufacturing services*” or CRAMS in a Business to Business (B2B) context, where the vendor delivers the product and the attendant services to the Client. The process gets in motion with the Clients meeting the Marketing team of Vendors at the exhibitions or the conferences viz. Convention on Pharmaceutical Ingredients (*CPII*) and *Informex*. The clients prefer this outsourced work to be carried out by vendors in a *Project* mode for better monitoring and control. In the initiation stage, the Clients roll out the Request for Proposal (RFP) to the vendors, who, in response to the RFP, send back to clients, the filled-in Proposal or Quotation indicating their technical capability and cost related details. The sustainability of the business of a vendor in emerging economies depends on the client’s perception of the attractiveness of the Proposal or Quotation. This paper attempts to highlight the key contribution of the activities of Project Management (PM) in complementing the Marketing team to secure the orders from clients. A real-world case study was taken up and several major projects with international clients were studied in a large Indian multi-national pharmaceutical company. The end to end PM activities –from rolling out project proposal to the delivery of product to the client- were analyzed. It was observed that PM complements and influences the Marketing activity in a significant way and contributes immensely for the timely delivery and cost-savings of Pharmaceutical projects.

Keywords— *B2B, CRAMS, Marketing, Pharmaceutical industry, Project Management, R&D.*

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I. INTRODUCTION

INDIAN Pharmaceutical industry made great strides in the past two decades (1990-2010). The turnover of the industry was around 21 billion USD and domestic market is worth approximately 12 billion USD [1] (per 2009 estimates). India is the 4 th largest market by volume and 13 th largest by value. It has transformed into a respected global hub for global innovator pharmaceutical organizations in contract research & manufacturing services (CRAMS) and clinical trials due to low-cost labor and high quality standards. The value chain of the Pharmaceutical industry mainly consists of Chemical intermediates, Active Pharmaceutical Ingredients (API) and Formulations. The recent developments include significant upsides in the revenues from Contract Research and Manufacturing Services (CRAMS) in a business to business (B2B) context.

Indian firms have certain unique competitive advantages to cater to the outsourcing requirements of the global innovator companies such as Pfizer, Merck and GlaxoSmithKline, who are faced with the twin challenges in drug discovery - (a) Speed to market, and (b) Cost reduction. Despite breakthroughs in combinatorial chemistry and other screening technologies, the drug discovery program still takes around 12 years and a minimum cost of 800 -1200 million USD to bring a new drug to the market. Therefore, the global innovator companies outsource the non critical activities to Indian firms to bring down costs and time [2]. Indian firms with vast pool of scientific talent, excellent manufacturing facilities (USFDA approved) and availability of cheap labor stand to gain immensely from the outsourcing activity. The sales turnover of the Indian Pharmaceutical Industry is expected to reach 55 billion USD and the domestic market sales to 20 billion USD by 2020 [3].

II. RESEARCH & DEVELOPMENT (R&D) IN PHARMACEUTICAL INDUSTRY:

In general, Pharmaceutical Industry thrives on Innovation [4]. In contrast, Indian Pharmaceutical industry has flourished since 1970 because of the Indian Patents law of 1970 which recognized only Process patents and not Product patents. All the major Indian companies made full use of this law by reverse engineering the product patents of global innovator companies. However, after the introduction of 1991 Industrial policy, the Industry was transformed from a locally focused

one into an export oriented one with emphasis on Research in place of reverse engineering. India also complied with the provisions of Trade related Intellectual Property Rights (TRIPS) of World Trade Organization (WTO) by enacting the New Patent Amendment Act 2005, which recognizes only Product patents.

In line with the above policy and regulatory changes, since 1995, the major Indian Pharmaceutical companies have ventured into drug discovery programs to come out with new molecules on their own. Dr.Reddys, Ranbaxy, Piramal Healthcare and Sun Pharma embarked on ambitious R&D programs by beefing up their technical manpower and R&D facilities. After a decade and a half, although none of the companies could commercialize a single new chemical entity (NCE), these organizations have earned reputation across the major global markets such as US, Europe and Japan for their chemistry skills and quality standards.

Currently, the R&D programs of these major companies pursue two types of activities: 1) New Product Development (NPD) to come out with proprietary molecules and 2) CRAMS- to cater to the outsourcing requirements of the global innovator companies (clients) The focus of this paper is on the CRAMS activities.

III. PROJECT MANAGEMENT (PM) IN PHARMACEUTICAL INDUSTRY:

The Project Management (PM) activities made a late entry into Pharmaceutical industry when compared with other industries such as Information Technology (IT). Despite the late entry, the pharmaceutical industry has been aggressively adopting the project management methodology and philosophy in several areas.

The Project Management (PM) activities have regular interface with all the functions in a vendor organization. The unique value addition that PM brings in here is the sharp focus on meeting the time lines and operating within the budgeted costs. The Project Manager usually has a dotted line relationship with the functional managers. However, PM has unique advantage of the backing of the Top Management team which would strictly adhere to the client's insistence on a *project based work flow*. In this context, the coordinating role of PM has tremendous *strategic significance* [5].

The twin challenges in research activities- Speed to market and low cost- can be successfully met only if the activities of all the functional departments and PM seamlessly blend. The emphasis here is on collaboration rather than competition. PM aims to achieve the lowest cost possible by questioning the cost structure of the raw materials and insists on discounts from suppliers of raw materials by leveraging the long standing organization's relationship with the suppliers. Also, PM ensures timely supply of raw material on site so that manufacturing can be initiated on time. PM team works in tandem with the Production department to ensure the timely completion of the manufacturing activities. Apart from this, PM also has an interface with administrative activities and technical activities like submission of bids/proposals, quality testing, etc. Therefore, the complex and diverse activities of PM in pharmaceutical research projects operate in a dynamic

and challenging environment to satisfy the client by delivering right product in right time.

To make things simpler, the project delivery process in Pharmaceutical outsourcing work can be broadly classified into three important phases:

- Presales activity
- Project execution and
- Client engagement for repeat orders.

Pre-sales: The input to this phase is Request for Proposal (RFP) and the output is a Purchase order (PO) from the client. The client forwards the (RFP) to the Marketing division of the vendor organization. The Marketing team in turn forwards it to the Project Management (PM) team, which facilitates the circulation of RFP to the internal stakeholders viz. Production, R&D, Supply Chain Management and Quality Department. The Project Manager(PM) initiates a project kick-off meeting with all the stakeholders concerned to clarify the expectations from each role. A comprehensive techno-commercial is prepared by consolidating the inputs from all the departments. The PM takes the proposal up for discussion with Business Head before submitting it to the client. A purchase order, along with a Service Level Agreement (SLA), is issued by the client, to confirm that work on the project can be initiated by the vendor.

Project execution: The PM team interacts extensively with R&D, Marketing, Supply chain Management (SCM) and Production. PM team facilitates the information flow between Marketing, SCM, Production and R&D, on the raw materials specifications, quantities and the timelines for the materials to be positioned at site for lab testing and scale up of the production activities. PM team ensures that the Marketing team is apprised of the progress of the project. This would enable the Marketing team to assure the clients of the timely delivery of the current projects and then negotiate for the potential future projects. Then, PM follows up with R&D for generating the test samples in the laboratory for the client's approval so that production on higher scale can be taken up. After the laboratory tests, some pilot trials are conducted to ascertain the reproducibility and consistency of the Lab experiments on a higher scale. After the pilot trials, full scale production is taken up. PM ensures that the production schedule conforms to the overall project delivery timelines. The product once approved by the Quality control department is stored in the finished goods space after proper labeling and packing. PM gets the approval from the client for dispatch of the product to the client's site. PM coordinates with SCM and Logistics team for proper transportation facility to ensure that desired temperature and Humidity are maintained for preserving the product's quality and shelf life. PM tracks the delivery of the product and apprises the client of the exact date and time of product delivery. After obtaining the confirmation from client about receipt of the product, PM follows up on the accounts receivables (Payment for the work) with the Marketing team and the client. The PM convenes a Project closure meeting to formally close the project.

Client engagement for repeat orders: PM clarifies any queries raised by the client on the product. PM along with Marketing team would explore opportunities for repeat orders

for the same product. If any order is repeated by the client, PM, Marketing and R&D would make necessary arrangements for fulfillment of the same.

IV. CASE STUDY

Seven outsourced projects of international clients of a major Indian Pharmaceutical MNC were studied. All these projects covered different therapeutic areas like Cardio vascular, Central Nervous system (CNS), Gastroenterology, Diabetes and Ulcer/Gastro. The cost of the projects were in the range of US \$ 180,000 – 800,000. To maintain confidentiality, the details of the clients and the projects are suppressed by giving only the origin (country) of the clients and assigning alphabets to the seven projects starting from A and ending at G. The project turn-around time of the seven projects was in the range of 4 – 12 months. All these particulars of the projects under study are listed in Table I (Annexure).

All the activities under the three phases of project delivery process had contributions from various departments within the organization. For example, the roll-out of techno-commercial proposal had contributions from five departments, namely, Project management (PM), Marketing Production, R&D, and Quality Control (QC). In the same phase, RFP circulation had contribution from Marketing department only, whereas, submission of Quotation (or proposal) by both Marketing and PM departments. Both Marketing and PM contribute to the activities of order confirmation from client passing onto internal stakeholders, Accounts receivable, Closure of project under the phase of Project Execution; the activity of Follow-up on the use of project at client's end under the phase of Client engagement for repeat orders. Likewise, R&D, QC, Production, and PM departments together contribute to the activity of bringing Clarity on the desired product specifications under the phase of Project Execution. This way, the contributions of various departments individually and collectively for each and every activity of project delivery system were studied. Table II lists all those activities involved in the entire project delivery process along with contributions from different organizational departments and their relationship with Marketing and PM.

From the data shown in Table II, it could be emphasized that there was major contribution from project management and next to it, from Marketing. The table demonstrates the wide reach of the project management in the overall project delivery (60% of the activities). Marketing has a share of 43% of the total activities. PM figures in 8 out of the 10 activities of the Marketing (80%) indicating the critical interfacing role played by PM in the Marketing activities. Thus, Project Management contributes significantly to the timely delivery and reduction in cost of the pharmaceutical projects.

V. CONCLUSIONS

This study attempted to understand the various activities in project delivery system and their relationship with Marketing and project management departments for achieving the twin objectives of Pharmaceutical Drug Discovery-Speed to market and Low cost. In this process, seven outsourced pharmaceutical projects in a major pharmaceutical company

were studied in detail. It was concluded that Project Management complements and influences Marketing in many ways and contributes significantly for the timely delivery and cost efficiency of the pharmaceutical projects.

REFERENCES

- [1] IMS Health India report 2010. (www.imshealth.com)
- [2] Jayashree Dubey., and Rajesh Dubey (2010), 'Pharmaceutical innovation and generic Challenge: recent trends and causal factors', International Journal of Pharmaceutical and Healthcare Marketing, Vol 4, No. 2, pp 175-190
- [3] IMS Health India report 2010. (www.imshealth.com)
- [4] Mohammed Rafiq and Tim Saxon (2000), "R&D and Marketing innovation in NPD in Pharmaceutical Industry", European Journal of Innovation Management, Vol 3, No. 4, pp 222- 231
- [5] Philip Hermel and Annie Bartoli (2001), "Strategic and Organizational innovations in the pharmaceutical industry-searching for total quality: the case of a large European Pharmaceutical Company," The TQM magazine, Vol.13, No.3, pp 169-174

ANNEXURE I

TABLE I
DETAILS OF OUTSOURCED PROJECTS
UNDER STUDY

Client (origin)	Project Code	Therapeutic area	Value (USD)	Project Turnaround Time (month)
USA	A	Cardio vascular	220,000	5
USA	B	Cardio vascular	250,000	6
France	C	Central Nervous System (CNS)	210,000	6
Sweden & Bangalore	D	Gastroenterology	320,000	8
UK	E	Cardio vascular	270,000	12
Switzerland	F	Diabetes	810,000	11
Japan	G	Ulcer/Gastro	180,000	4

TABLE II
ACTIVITIES INCLUDING MARKETING
AND PM IN PROJECT DELIVERY SYSTEM

S. NO.	Activity	Department responsible	Relationship of the Activity with Marketing	Relationship of the Activity with PM
Phase-I : Presales activity				
1	RFP circulation from client to the organization	Marketing	✓	
2	Internal circulation of RFP	Project Management		✓
3	Kick-off meeting with all the stakeholders concerned	Project Management		✓
4.	Roll out of Techno-commercial proposal	PM, Marketing, Production, R&D, SCM and QC	✓	✓

5	Submission of Quotation (Proposal) to the client	PM and MARKETING	✓	✓
Phase-II Project Execution				
1	Order confirmation from client passed onto the internal stakeholders	MARKETING and PM	✓	✓
2	Clarity on the desired product specifications	R&D, QC, PRO D, PM		✓
3	Request for Raw materials	SCM, R&D, Production		
4	Work on chemical synthetic process in Laboratory	R&D		
5	Dispatch of Laboratory samples to Client for approval	R&D, QC, SCM and PM		
6	Confirmation of the Approval of lab samples by client	PM		✓
7.	Pilot plant trials	R&D, SCM, Production		
8	Full scale production	SCM, Production		
9.	Approval of products per desired specifications	QC, Production		
10.	Approval of product by client for dispatch	SCM, PM		✓
11	Packaging of the product	SCM, Production, QC & QA		
12	Dispatch of the material	SCM, PM		✓
13	Confirmation of receipt of material	PM, MARKETING	✓	✓
14	Accounts receivable	PM, MARKETING	✓	✓
15.	Closure of the project	PM, MARKETING	✓	✓
Phase-III Client engagement for repeat orders				
1.	Follow-up on the use of the product at client's end	PM, MARKETING	✓	✓
2.	Exploring opportunities for repeat orders	MARKETING	✓	
3.	Arrangements for fulfillment of repeat order	PM, R&D, Marketing	✓	✓
	Total Activities=23		Marketing= 10	PM=14