An assessment of professional training for product managers in the pharmaceutical industry

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Abstract

Purpose – The primary purpose of this study is to identify how and where product managers in the pharmaceutical industry receive the training required to undertake their job tasks, and whether or not there is a relationship between the tasks they perform and the training they receive.

Design/methodology/approach – The methodology for this study was exploratory and descriptive in nature, and utilized a cross-sectional survey design. Both descriptive and relational statistics are used to analyze the data.

Findings – The key findings reveal that product managers receive the majority of their training on the job, with the rest supported by company-sponsored training and outside seminars. Product managers do not appear to receive company training in proportion to the frequency with which particular tasks are performed.

Research limitations/implications – The limitations to the study are that the findings are limited to one industry and that training needs are self-reported.

Originality/value – Managers should not assume that on the job training adequately prepares product managers to do their jobs properly, and training should be an essential part of the product manager’s experience. The paper identifies specific areas for future training.

Keywords Pharmaceuticals industry, Marketing, Product management, Training needs, Training methods

Paper type Research paper

An executive summary for managers and executive readers can be found at the end of this article.

Introduction

The product management system, initially adopted by Procter & Gamble in order to improve the effectiveness of developing and marketing products, has undergone significant changes over the years (Franzoni, 1991). In the 1990s, the combination of explosive demand for new and improved products as well as the availability of new technology for production and delivery of such products generated additional demands on the system (O’Connell, 1996). This situation accelerated the rate of change and it produced an “evolved” system which attempts to respond to current market dynamics (Katsanis and Pitta, 1995). In the current millennium, the growth in technology with which to communicate with customers and address internal marketing needs has mushroomed. In fact, Procter & Gamble has updated its marketing training and has made this training a top priority for the organization (Neff, 2002).

Despite the importance of product managers to the marketing function, however, there has been little research conducted on product manager training since the late 1990s. It is not clear whether this research gap is as a result of lack of interest on the part of researchers; the lack of training given to product managers; or the assumption that the training they currently receive is adequate.

European managers appear to consider product management training somewhat more important than their North American counterparts. For example, The Marketing Excellence Forum in the UK (which consists of market leaders such as Unilever and P&G) meet together several times a year to exchange experiences and best practices, and subsequently decide how to “trickle down” this learning into their organizations (Brand Strategy, 2005).

The role of the product manager, in most, if not all industries, is to develop product marketing plans, see that they are implemented, monitor the results and take corrective action. Such a limited scope does not capture the breadth of the coordination function (Hehman, 1984; Low and Fullerton, 1994), the importance of boundary spanning to develop and maintain a large network of industry contacts (Lysonski, 1985), or the highly developed level of interpersonal skills required to facilitate the accomplishment of tasks through relationships with people over whom the product manager has no direct authority (Gemmill and Wilemon, 1972).

With the increasingly rapid change, serious questions are being raised about the ability of product managers to meet these challenges in today’s leaner, faster moving and entrepreneurial enterprises (Berggren and Dewar, 1992; Low and Fullerton, 1994; Katsanis and Pitta, 1995). Quelch et al. (1992) indicated that product managers want...
to spend more time thinking, writing and training, and that they believe creative efforts are not rewarded. There are persistent criticisms of product managers, which include their short-term focus, short-term tenure in the job, and ignorance of key tasks required (Gabarro, 1985; MacStravic, 1996; Murphy and Gorchels, 1996; Katsanis et al., 1996). Many of these concerns appear to be linked to the common practice of corporations which recruit both young and inexperienced candidates. With inadequate knowledge and lack of experience, many of these individuals fail in their duties as product managers (Low and Fullerton, 1994). In addition, the "soft" skills of product management appear to be given short shrift by many companies, which would include leadership, team-building, coaching, mentoring, presentation and negotiation (Cowlett, 2001).

There appears to be a gap between the requirements of the highly developed product management system and the relatively inexperienced individuals who hold the positions in the system. It can be reasonably assumed that the current level of training received by product managers may not be sufficient for them to successfully carry out their tasks. This study will address the issue of product manager training, with a specific focus on product managers in the pharmaceutical industry.

Study objectives

The primary objective of this study is to identify how and where product managers in the pharmaceutical industry receive the training required to undertake their job tasks. The pharmaceutical industry was chosen because it currently operates in a rapidly changing business environment which necessitates significant changes in the product management function. Through identification of where pharmaceutical product managers receive their training, understanding may be shed on either the strengths or weaknesses of the current training systems. Second, it will attempt to identify the future training needs of product managers in this industry, which is experiencing rapid evolutionary changes. The findings may prove valuable to firms who are attempting to develop appropriate training programs for their product managers.

Literature review

While a great deal has been written describing product managers, little has been written which focuses on product manager training. For the most part, product manager training takes two forms: formal education which is received prior to beginning their career, and on-the-job training (Bart, 1986). Most, if not all, formal training is theoretical, usually resulting from a general business degree which the new product managers complete prior to entering the work force. On-the-job training has been reported in the literature as informal and dependent on the knowledge base of upper-level management (Bart, 1986). Several general models of management training and adult learning have been presented in the literature, and while useful, do not shed light on the amount or type of training received by product managers.

Most pharmaceutical product managers come from a sales background. However, these managers do not have the appropriate skill level or knowledge to understand the key tasks of brand management, because the job skills for the two positions are quite different. The skills required in order to be a good salesperson are only a subset of the skills required for a good product manager. Consequently, product managers with a sales background are unprepared for working in a physical office space, as well as for the technical type of expertise required for writing marketing plans and understanding the intricacies of product development (Panigyrakis and Veloutsou, 1999).

Ross (1999) states that many newly-appointed pharmaceutical product managers have minimal marketing skills, for the following reasons:

- product management is not a career path in the industry;
- product managers are recruited from the sales force;
- few companies have comprehensive, thorough training programs; and
- rapid turnover can result in as many as three different individuals handling a product in a short period of time, which causes lack of continuity. He concluded that product managers need rigorous and systematic training.

The limited literature available which specifically addresses product manager training suggests that product managers usually receive a continuous flow of recommendations and suggestions with respect to the necessary skill sets (Bart, 1986). The success of this method of training, however, relies solely on the ability of the supervisor to assign appropriate tasks and provide constructive and meaningful feedback. The apparent absence of a formal mechanism by which the supervisor provides training, is a significant factor in the gap between position requirements and the knowledge and experience of the product manager.

When the pharmaceutical industry is examined, it can be seen that the competitive pressures for product managers to perform are intense. In today's business environment, product managers must deal with a variety of exogenous factors which make their role more complex. Third party payer scrutiny, demand for cost-benefit outcomes, price constraints, and the growing complexity of government regulations are but a few examples of such factors. Pharmaceutical product managers must be trained not only to supervise the execution of the promotional plan and budget, but must also possess a wide range of skill sets ranging from statistical and quantitative analysis and marketing research to a strong understanding of basic financial principles including the dynamics of profit and loss administration. (Medical Marketing & Media, 1993). In 1999, the Healthcare Marketing and Communications Council, the pharmaceutical industry's oldest and largest trade association, determined that training for new and/or aspiring product managers should have the highest priority. They subsequently organized the first Pharmaceutical Product Manager Development Program (Girondi, 1999).

In light of the foregoing, it is evident that an assessment of current product manager training will provide a useful perspective and a necessary step toward the development of future training programs for product managers.

Research questions

The key research questions are as follows:

RQ1. On what tasks do pharmaceutical product managers spend most of their time?
RQ2. On which of these tasks do pharmaceutical product managers receive training, and from what sources?
RQ3. What are the self-reported training needs of product managers?
RQ4. Is there a difference between the time spent on key functional tasks by product managers and the amount of company training received for these tasks?

RQ5. Is there a difference between company training received and on-the-job experience for key functional tasks?

RQ6. Is there a difference between the time spent on specific functional tasks and self-reported training needs for key functional tasks?

**Study methodology**

This research is exploratory, descriptive in nature, and utilized a cross-sectional survey design. As such, no formal hypotheses will be stated. Descriptive statistical analysis and a two-tailed test of proportions using the z statistic were used to analyze the data.

The questionnaire consisted of 22 functional tasks divided into three sections. These tasks were adapted from Smith (1991) and are well established in the literature as the key functional tasks for pharmaceutical product managers (see Table I).

The first section asked respondents to estimate the relative time they spent on 22 different tasks. A five-point scale was used which ranged from “Very frequently” to “Rarely”. The second section asked where the respondents acquired the knowledge to conduct these tasks (this included university/college, company training; external seminars; or on-the-job experience). The final section asked respondents to estimate their future training needs on the 22 tasks using a five-point scale ranging from “High” to “None”. For purposes of brevity, only the largest percentage tasks from the list of 22, as well as the statistically significant tasks from the same list will be reported.

Questionnaires were mailed to 300 pharmaceutical product managers whose names were obtained through a commercial mailing list and randomly generated. The final number of questionnaires used in the survey was 50, or a 17 percent rate of return. In this group of respondents, 27 different companies from the industry were represented.

**Study limitations**

The generalizability of the findings presented is limited to one industry. Additionally, the need for training is self-reported, and not based on an external and/or objective party providing the evaluation. However, the data presented here can be quite useful to pharmaceutical industry managers who wish to identify general areas for training and development needs.

**Findings**

**Demographics of sample**

Of the product managers surveyed for this study, 75 percent were between the ages of 30 and 40 years old; 66 percent of these individuals possess a Bachelor’s degree, and 65 percent have between one to three years of experience as a product manager.

**Time spent on key functional tasks**

The majority of product managers spend over 70 percent or more of their time on ten of the 22 tasks (the tasks listed are those which respondents indicated they spend their time “frequently”). Table II illustrates the ten primary functional tasks based on this survey.

When ranked by percentage, the top five functional tasks are: “direct and implement marketing plans”, “foster and direct product team communication”, “exercise approval for promotional copy and material”, “establish and monitor budgets”, and “anticipate market changes”.

**Sources of knowledge**

On average, product managers receive 87 percent of their knowledge through on-the-job experience. This on-the-job...
experience is supported by company-sponsored training (29 percent), college/university training (15 percent); and outside seminars (14 percent). Percentages exceed 100 percent due to the multiple selections possible for this answer.

The top ten tasks on which product managers receive company-sponsored training are listed in Table III. Overall, the single highest percentage of company training received was 56 percent for “objective setting.” Other areas of high percentages of company sponsored training received included: “developing strategies”, “fostering team communication”, and “establishing and monitoring budgets.” Some of the most frequently performed tasks, such as “direct and implement marketing plans,” and “exercise copy and promotional material approval” show lower levels of training reported.

**Frequently performed tasks vs considerable company training**

The z statistic was calculated to determine whether the proportion of “frequently performed tasks” is different from the proportion of “company training received.”

Product managers do not appear to receive company training in proportion to the frequency with which particular tasks are performed. The most statistically significant results correspond to those tasks for which respondents received proportionally less training: “promotional and copy approval”, “directing and implementing marketing plans”, “developing forecasts”, “establishing and monitoring budgets”, and “fostering team communication”. While the function “new product introduction” was not an area which product managers ranked highly in terms of time spent, the data suggest that it is one of the areas which received significant amounts of company training (even though the finding was not statistically significant with respect to proportional differences).

**On-the-job experience vs company-sponsored training**

There appear to be differences between knowledge acquired through company training programs and knowledge acquired through on-the-job experience. Table IV presents this data, and it can be observed that when on-the-job experience is higher, company training is lower for six out of the seven tasks which have the highest proportion of company sponsored training. The one exception to this is “establishing objectives,” which was not statistically significant. However, this is the one item for which product managers received the highest proportion of training. Companies may consider outside expertise to be necessary for teaching this function because if objectives are not properly established, marketing plans cannot be properly implemented.

**Anticipated training needs**

When product managers were asked to assess which of their training needs were “considerable,” three areas emerged: “introducing new products” (48 percent), “anticipating market changes” (44 percent), and “resolution of governmental/legal/ issues” (43 percent). Seven of the nine areas of considerable training areas are not in the top ten ranked tasks (Table V).

The percentage of product managers receiving company training was compared to the percentage of time these same tasks are performed frequently. Only two of the nine tasks showed statistical significance. However, both the significant and non-significant findings are of interest.
Even though the results are not statistically significant for “new product introductions,” the data suggest that product managers appear to believe they need training in this important area (this item received the highest percentage for “considerable” training needed). The same may be surmised for “anticipated market changes” analysis. The need for training in these areas is not surprising, as the time spent as a product manager is short (on average, between one and three years). These functional areas are constantly evolving and require both monitoring and updating of information.

Three functions which show statistical significance (“develop strategies”, “direct and implement marketing programs”, and “forecasting”) also show fairly low levels of training needed when compared to the relatively high frequency of task performed. This may suggest that the on-the-job experience and acquired company training is sufficient for these specific tasks. The function “resolution of governmental/legal issues” is one where product managers’ time is not spent frequently, but where the level of training need appears relatively high because of the complexity and rapid change of the laws and regulations for pharmaceutical products.

**Discussion of results**

The results of this study are consistent with the previous literature (Smith, 1991) with respect to the functional responsibilities of pharmaceutical product managers. It is certainly not surprising that product managers spend the majority of their time on the day-to-day routine tasks required to manage their brands.

Functional tasks performed frequently appear to receive less company sponsored training. There are two possible explanations. When levels of company training versus on-the-job experience are examined, the inference can be made that upper management appears to believe that on-the-job experience, in most cases, is sufficient and that product managers can learn what they need from their direct supervisors. Another explanation may be the possible assumption by upper management that “practice makes perfect.” Given the high rates of turnover and lack of experience as reported in the literature, this would seem to be a faulty assumption.

Further, the findings suggest that the level of company-sponsored training and outside training is relatively low. This is a somewhat worrisome situation. Companies appear to rely largely on their own internal training capabilities, and the lack of external knowledge infusion may lead to the perpetuation of untrained product managers on the road to failure. This may also be partly an explanation for high turnover, as lack of knowledge may lead to job frustration.

It was encouraging to observe that emerging areas of importance, such as “introducing new products,” “fostering product team communication,” “anticipating market changes,” and “resolution of governmental/legal issues” are receiving relatively high levels of training. The literature points to these emerging areas of importance to the pharmaceutical industry as critical for product manager success (*Medical Marketing & Media*, 1993).

Finally, product managers did not seem to believe they needed training on those areas which they perform frequently. This finding was somewhat surprising given the short tenure and relative lack of experience of most product managers. They may suffer from the same “practice makes perfect” myopia as upper management. The areas they did identify as important for

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**Table IV** Proportion of respondents receiving company training compared with respondents reporting on-the-job experience for primary functional tasks

<table>
<thead>
<tr>
<th>Tasks</th>
<th>% receiving company training</th>
<th>% on-the-job experience</th>
<th>z 0.05 significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establish objectives (3)</td>
<td>56</td>
<td>72</td>
<td>1.26</td>
</tr>
<tr>
<td>Foster team communication (6)</td>
<td>44</td>
<td>90</td>
<td>6.48</td>
</tr>
<tr>
<td>Establish and monitor budgets (21)</td>
<td>38</td>
<td>92</td>
<td>4.21</td>
</tr>
<tr>
<td>Introduce new products (16)</td>
<td>36</td>
<td>94</td>
<td>4.21</td>
</tr>
<tr>
<td>Work with sales management (7)</td>
<td>26</td>
<td>96</td>
<td>5.83</td>
</tr>
<tr>
<td>Manage 4 Ps (2)</td>
<td>24</td>
<td>94</td>
<td>6.03</td>
</tr>
<tr>
<td>Monitor departmental linkages (10)</td>
<td>20</td>
<td>96</td>
<td>6.66</td>
</tr>
</tbody>
</table>

**Table V** Self-reported training needs compared with time spent on key functional tasks

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Rank by</th>
<th>Time spent (% respondents “frequently”)</th>
<th>Company sponsored training received (% respondents “considerable”)</th>
<th>z 0.05 significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduce new products (16)</td>
<td>18</td>
<td>48</td>
<td>40</td>
<td>0.93</td>
</tr>
<tr>
<td>Anticipate market changes (18)</td>
<td>16</td>
<td>44</td>
<td>42</td>
<td>0.23</td>
</tr>
<tr>
<td>Resolution of governmental/legal issues (17)</td>
<td>21</td>
<td>43</td>
<td>28</td>
<td>2.14</td>
</tr>
<tr>
<td>Research competitors (20)</td>
<td>14</td>
<td>31</td>
<td>48</td>
<td>2.17</td>
</tr>
<tr>
<td>Develop strategies (1)</td>
<td>8</td>
<td>27</td>
<td>76</td>
<td>4.80</td>
</tr>
<tr>
<td>Review sales incentive programs (14)</td>
<td>22</td>
<td>27</td>
<td>10</td>
<td>4.70</td>
</tr>
<tr>
<td>Direct and implement marketing plans (9)</td>
<td>1</td>
<td>27</td>
<td>92</td>
<td>5.50</td>
</tr>
<tr>
<td>Develop dollar/unit forecasts (4)</td>
<td>10</td>
<td>25</td>
<td>74</td>
<td>5.00</td>
</tr>
<tr>
<td>R&amp;D development (11)</td>
<td>15</td>
<td>25</td>
<td>42</td>
<td>2.57</td>
</tr>
</tbody>
</table>
training needs were indeed the ones which are emerging as important areas for their companies and the industry.

**Managerial implications**

One important implication of this research to the practicing manager is that they should ensure that product managers receive basic training in the fundamentals of their job; in other words, do not assume that “practice makes perfect”. One may find that practice simply reinforces bad habits, which ultimately has negative effects on performance. The competencies of new product managers should be assessed when they take on their positions, particularly those who come in “from the field”. This would help managers understand what training is required, rather than having all product managers receiving the same training (some of which may not be required). Training is often a low priority item for many companies. Given the complexity of the product management function, training should be considered as essential to the performance of the organization. One way to reduce the frequent turnover associated with the product manager position is to have well-trained individuals. Finally, there are many new areas of product managers are required to have expertise in, such as direct to consumer marketing, and database management (CRM). Additional training and special expertise may be required for these functions.

**Areas of future research**

Future research may focus on the effectiveness of current training methods in preparing product managers to accomplish their functional responsibilities. This research must ensure that the effectiveness measurements can be measured both internally and externally.

A second area of future research would be to examine what skills marketing managers today consider important for product managers to possess; whether it is perceived that salespeople have these skills; and finally, whether or not the training needs of product managers from non-sales backgrounds differ from those with sales backgrounds.

A third area of future research is that of curriculum development for product manager training programs. This study suggests that many product managers learn on-the-job from their immediate supervisors. Certain tasks may be best learned “outside” the company, and an assessment of which skill sets are most appropriate for external training should be identified.

This study can be carried out for different industries, or across industries for all product managers to see if similar results emerge. Additionally, it would be interesting to compare results from product managers within the same firm, to examine within-firm differences.

Finally, it would be of interest to see if there is a correlation between performance on the job and the training received by the product manager when starting his/her job. Training would be expected to produce improved performance results under most circumstances.

**References**


**Further reading**

Professional training for product managers

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Executive summary
This executive summary has been provided to allow managers and executives a rapid appreciation of the content of this article. Those with a particular interest in the topic covered may then read the article in toto to take advantage of the more comprehensive description of the research undertaken and its results to get the full benefit of the material present.

Big pharma’s Achilles heel
Few businesses have thrived more than pharmaceutical businesses in an increasingly global marketplace characterized by lower rates of tariffs, inter-connected communications and big brands. R&D costs are such that without international markets there would be no “big” in “big pharma” – virtually all national markets would simply be too small to support the scale and uncertainty of investments.

The product manager’s role
Yet globalization brings its own challenges, and emerging competitors, particularly from the generic drugs providers, The product management system, initially developed by Proctor & Gamble, is central to the plans of the pharmaceutical giants in their fight for market supremacy. It is a fast moving field, changed by new communications technologies and faster product-to-market cycles. The responsibilities for products and brands have always been large. Their direct reports are low in number – the job is about winning friends (or not) and influencing people, people over whom they have no line authority.

In short, it’s a key role that demands a high degree of knowledge, an ability to continually update and renew knowledge and skills, and a high level of interpersonal skills to work through people to achieve results. It is normally about developing product marketing plans, ensuring their delivery, monitoring results and taking corrective action where necessary.

It is a highly skilled role then. One where training investment is a given. You would think so. The reality, while better in Europe than in North America, is different. The pharma giants have protected themselves from competition in a number of ways, apparently invincible. Yet, like the Achilles of Greek mythology, they have missed one very important spot, and have made themselves vulnerable.

Where to focus training efforts
Product manager roles are rarely part of a career planning process; they are mainly recruited from sales. They know the business, yet this does not prepare them to the role that lies ahead, in fact the skill sets for sales and for product management are completely different. Those newly appointed are unlikely to be adequately trained for the role. And the turnover in product managers is high, few last in the job for long, which is both ironic and potentially disastrous, the role requires a focus on the medium- to long-term future.

A rare study into this area by Lea Prevel Katsanis of Canada’s Concordia University sought the views of 300 pharmaceutical product managers, and from within the 50 respondents, 27 companies were represented. The survey asked respondents about the areas in which their training needs are considerable. These emerged as:
• introducing new products;
• anticipating market changes; and
• resolution of governmental/legal issues.

In short, the very issues that are at the heart of the business and impact significantly on the future of the firm. Product managers reported that they spending most of their time on the day-to-day routine tasks required in managing their brands. Somewhat surprisingly they didn’t feel that they needed extra training in these areas, but that too can be interpreted as worrying – it could be mere myopia, an assumption of good practice, when there is little evidence to suggest that external benchmarks have been sought.

Practice does not make perfect
The picture emerging is one heavily reliant on on-the-job training. There certainly seems to be a belief from upper management that this is the most effective approach, either that or benign neglect of alternatives. Even this seems unsystematic – knowledge absorption by osmosis perhaps.

The assumption that “practice makes perfect” is one that is, at best incomplete. Product managers need early and ongoing training in the basics of their job. Without specific programs, including use of external providers, engrained bad habits will merely perpetuate themselves. Of course the product managers who are newly in-post will not know what they don’t know, but their companies can anticipate and put in robust structures for developing those whose success underpins corporate success.

It is little surprise then that retention of product managers is so low, yet this is a situation that surely can’t be allowed to continue. If people with the skills to close sales in the short-term, are put into roles that demand a different perspective, then left under-prepared for the rigours ahead, any sense of achievement is likely to be minimal or accidental. If people who felt a strong sense of control over their own destiny are put into situations where influence rather than authority is the key, it is not difficult to imagine the levels of frustration that will result.

It is the upper-level myopia regarding this that is much harder to fathom. Executives will recognize just how vital product managers are to their achieving desired revenue targets. They must have some sense of the complexities and ambiguities of the role. So why is product manager training neglected?

However, looking at this issue from a more positive perspective, pharmaceutical multinationals are on the whole doing very well. Investing in product manager training is not a difficult problem to solve. Solving it will correlate to even greater commercial success. This could be the best decision you make when you are crunching the numbers in the next budgetary cycle.

(A précis of the article “An assessment of professional training for product managers in the pharmaceutical industry”. Supplied by Marketing Consultants for Emerald.)

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