

DETERMINING FACTORS THAT INFLUENCE SALES PERFORMANCE IN A PHARMACEUTICAL COMPANY

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ABSTRACT :This study aims to find the relationship between product knowledge and selling skill in achieving sales targets and looking for other factors that affect sales performance. This research was conducted on 28 medical representatives in a division of a multinational pharmaceutical company in Indonesia. Product knowledge and selling skill is taken from routine assessment. Achievement of sales targets is taken from the average over a period of 6 months. Questionnaires were given to each medical representative to get an overview of perceptions of product knowledge, selling skill, relationship with sales performance and to find out the perceptions of factors that influence sales achievement. There were 68% of medical representatives who passed the product knowledge test and 86% who passed selling skills. Sales target was achieved by 71% medical representatives. Based on relationship analysis, there is no significant relationship between product knowledge and selling skills, there is no significant relationship between product knowledge and sales achievement as well as there is no significant relationship between selling skills and sales achievement. Based on medical representatives' perception there were 5 main factors which had influence on sales performance: product knowledge, good relationship with doctors, selling skills, area knowledge and right marketing activities.

KEYWORDS –Medical Representatives, Pharmaceutical company, Product knowledge, Sales Performance, Selling skills

I. INTRODUCTION

The process of launching and selling drug in a pharmaceutical company carried out with strategy from marketing division, executed by the sales team and assisted by market access team for registration process in several private hospitals throughout Indonesia. The main target customers for selling a branded generic drug mainly are doctors in private hospitals, which then prescribe the drug for patients.

In carrying out the process of selling drugs, sales team (Medical Representatives) required to have several expertises. They must have basic knowledge about disease, mechanism action of the drug, supporting clinical studies, as well as capable to answer doctors' questions regarding the benefits of drugs compared to competing products. After obtaining this knowledge they must be able to implement theory in the form of role play or detailing using promotional material and guidance that has been prepared by marketing team.

Every medical representative will receive sales target at the beginning of each month and the achievement of those target will be calculated at the end of the month. The number of drugs prescribed by doctors in private hospitals can be seen from distributor data at the end of the month. Sales achievement will be calculated from number of drugs being purchased by private hospitals, in the area of responsibility for each Medical Representative.

To achieve sales target, there are several activities carried out by a Medical Representative, such as routine visits to target doctors at private hospitals to promote benefit of drug by verbal communication and showing promotional materials (product brochures), usually called as detailing. Medical Representative also conduct Focus Group discussions (discussions focusing on scientific data of drugs) and Round Table Meetings (presentations about disease and its treatment, with 1 doctor as the speaker and several doctors as the audience). Medical Representative also has to coordinate with hospital's purchasing department (pharmacist in charge) so that his / her product can be included in the drug formulary at those private hospital.

The company's revenue is determined by the ability of Medical Representatives to achieve sales targets. At the time this research conducted, the overall sales performance has not showing optimal results. With various sales and marketing activities, for several Medical Representatives, sales performance have not been met target in the last 6 months (Q4 2022 and Q1 2023) in a division which responsible for a newly lauched drug. Company

is confronted with the issue of substandard sales performance, as demonstrated by sales achievements being below 90%.

The aim of this research is to investigate the impact of knowledge and selling skills on the achievement of sales targets in a division which responsible for a newly launched drug, as well as identifying other factors that affect sales performance. Additionally, the author intends to determine whether the strategy implemented by Learning and Development team has any influence on increasing the number of sales. Once the analysis results are obtained, this information can be utilized as input to enhance the sales team's performance.

II. THEORETICAL FRAMEWORK AND HYPOTHESIS

Pharmaceutical sales representatives or commonly known as Medical Representatives (MR) are representative of pharmaceutical company to sell the products to customer. The customers then called as Health Care Providers (HCP), which varies from medical doctor, nurse, pharmacist in hospital / clinic and purchasing department of medical health centre (Dar, 2020).

The medical sales representative's responsibilities include: Initiating meetings with potential and existing customers / HCP, conducting presentation on company products (drugs and medical /diagnostic devices) to potential and existing HCP and persuading them to make purchases, identifying customers' needs and deliver recommendation of company products that best fulfil the unmet needs, maintaining good relationships with new and existing customers by providing excellent after-sales service, arranging Focus Group Discussion and Round Table Meeting for medical professionals, attending internal training, company meetings, briefings, and continuous medical education as well as researching competitors' activities related to sales and marketing (HotlanSiagian, 2020).

Knowledge has become a strategic asset for a company. Product knowledge is an essential element in strengthening the strategic role of Medical Representatives. Product knowledge is a critical factor that determines the interaction between salesperson and customers. Moreover, the customer of pharmaceutical company is Health Care Providers with high knowledge and mostly scientific. For customers, the product knowledge of the salesperson reflects the quality of the Medical Representative. The lack of product knowledge possessed by MR will result in difficulties or significant obstacles in the process of adjusting to the sales situation. Inadequate information obtained by HCP from MR will cause HCP to reconsider purchasing the drugs / medical devices (Rentz, 2002).

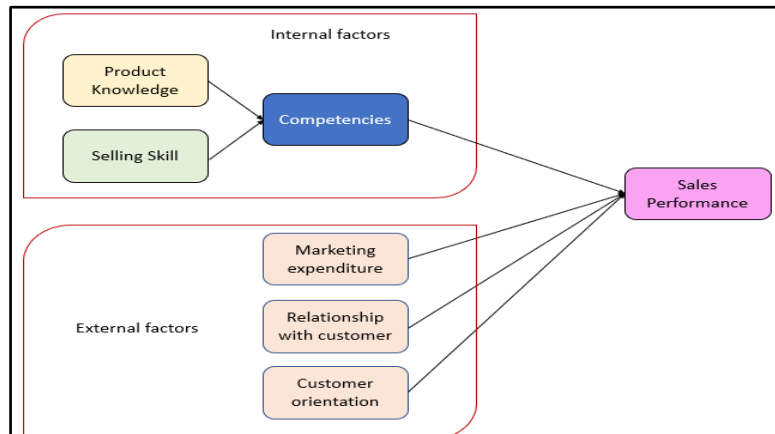
Acquiring appropriate sales skills can result in more impactful dialogues with buyers and favourable responses from potential customers. Several crucial sales skills encompass proficient communication, product knowledge, customer service, problem-solving ability, business acumen, sales demonstration, and negotiation. Other significant selling skills comprise planning and strategizing, comprehending needs, driving agreement, and positioning value. Additionally, a profound comprehension of the product or service being marketed can enhance sales success by instilling confidence in the sales representative (Hamini, 2012).

Doctors found that the most successful MRs calls were those that were a good combination of relational aspects as well as the education that is within the script of a sales call. With a good combination, doctors found that medical representatives stepped into an advisor role opposed to just a sales role. This allowed the doctors to have a stronger relationship and more trust between those medical representatives that used their time wisely and got their point across in the way that each doctor preferred most (Chmelicek, 2013).

In India, a study conducted in 2015 focused on an industry where Medical Representatives are still considered the primary breadwinners and found that interpersonal skills are critical for success. The study also revealed that the longer a Medical Representative has worked in the field, the greater their level of interpersonal skills. The study identified "Listening" and "Buyer/Seller Relationship" as significant interpersonal skills that impact sales performance. Therefore, the study recommends that pharmaceutical companies prioritize the development and identification of these skill sets to enhance their sales. In Indian conditions, it is essential to provide training and proper recognition to sales executives who possess these skills to ensure sales force effectiveness (Rajan, 2015).

Based on the description of theoretical concepts and previous research, I proposed conceptual framework as bellow (adapted from Linh, 2019 and Simanjuntak&Tjandrawinata, 2011):

Figure II.1. Conceptual framework

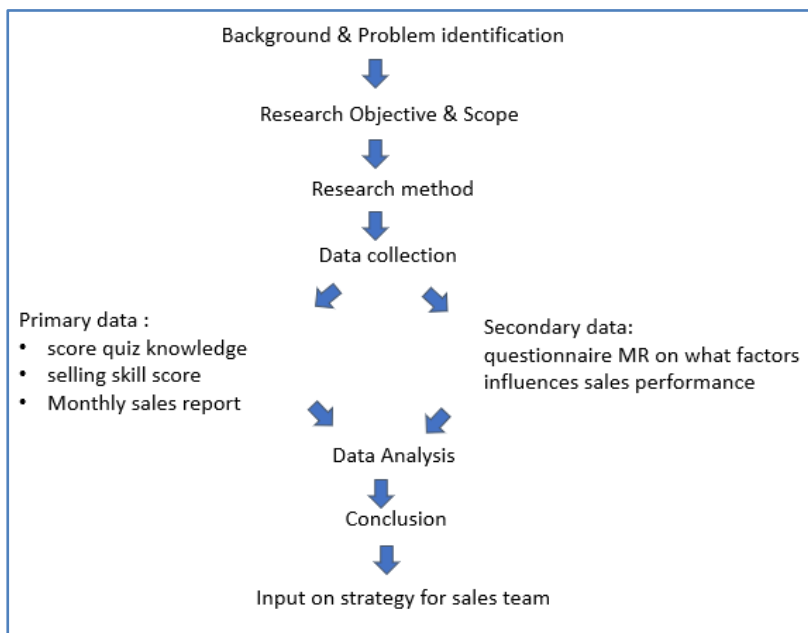


III. RESEARCH METHODOLOGY

3.1 Research Design

In this study, primary and secondary data are being collected. Primary data is information that can be obtained from routine activities on competencies assessment of medical representatives. The data taken from score quiz for product knowledge, score selling skill using score and data on sales achievement for 6 months period (between Q4 2022 – Q1 2023) in sales division which responsible for newly launched drug.

Figure III.1. Research framework



After collecting primary data, calculation on the correlation coefficient between knowledge level, selling skill and sales performance using SPSS. The correlation coefficient measures the strength and direction of the linear relationship between the two variables. A correlation coefficient of 1 indicates a perfect positive correlation, while a correlation coefficient of -1 indicates a perfect negative correlation(Wibisono, 2013).

3.2. Data Collection Methods

To find correlation between knowledge and selling skill of medical sales representatives on sales performance, I will conduct data collection through:

I. Assessment on knowledge and selling skill

In the assessment for product knowledge the question delivered via google form and consist of 4 main topics: medical knowledge, product profile, clinical study data and handling objection on competitor. The score ranges from 0-100, with cut point 80 to decide whether a medical representative qualified or not. Score 80 – 100 considered as qualified on product knowledge and score below 80 considered as non-qualified.

For Selling skill assessment conducted through 5 minutes roleplay face to face or online using Microsoft teams, which then recorded on internal Apps. The roleplay consisting of 5 requirements. The score ranges from 0-25, with cut point 20 to decide whether a medical representative qualified or not. Score 20 – 25 considered as qualified on selling skill and score below 20 considered as non-qualified.

II. Questioner

The author delivers the question through google form with the sales team consisting of 28 medical representatives to find what main factors influence on achieving monthly target sales.

Here are some questions being asked through questionnaire:

1. How does product knowledge affecting selling skills?
2. How does product knowledge affecting sales performance?
3. How does selling skills affecting sales performance?
4. Does knowledge and selling skills affect sales performance for antihypertension drugs?
5. Most factors which give influence on sales performance?
6. What suggestions given by Medical Representatives for the learning process?

III. Reports

The author also looks at data reports from monthly sales history of newly launched drug. This data will show total revenue performed by each medical representative in the period of Q4 2022 – Q1 2023 (6 months)

3.3. Data Analysis Method(s)

For quantitative analysis, Logistic Regression Analysis which is a statistical method used to model the relationship between the independent variable (generally a categorical variable) and the binary dependent variable (two possible values). This method is suitable for testing hypotheses related to categorical or qualitative variables in order to determine the effect of these variables on the binary dependent variable (Bhandari, 2022).

For qualitative data obtained from questioner, a data analysis tool that can be used is content analysis. There were several steps to conduct qualitative data analysis:

1. Gathering and collecting qualitative data
2. Organizing and connecting into my qualitative data
3. Coding qualitative data
4. Analysing the quantitative data for insights
5. Reporting on the insights derived from analysis

IV. RESULT & DISCUSSION

Most of Medical Representatives involved in this study have pass category (qualified) in Product Knowledge (19 out of 28) or 68%. Meanwhile 86% respondents involved in this study has a pass category (qualified) in Selling Skills. Seventy one percent Medical Representatives involved in this study met sales target. Nevertheless, target achievement still below expectation, since company expect that 100% sales team met target.

Sixty one percent of respondents stated that the impact of product knowledge on selling skills is very important. This shows that most of the population involved in this study stated that the impact of product

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knowledge on sales skills is very important. A medical representative stated that “product knowledge must be mastered first, so that when conducting selling skills and deliver scientific data, I can convey product knowledge information correctly to doctors”.

Meanwhile 57.1% of respondents stated that the impact of product knowledge on sales performance is important, and 32.1% of respondents stated that the impact of product knowledge on sales performance is very important. This shows that most of the population involved in this study stated that the impact of product knowledge on sales performance is important. In the opinion of medical representatives, “product knowledge has an important role in achieving sales. When a doctor understands product details shared by a medical representative which has excellent understanding on product knowledge, then doctors will have a greater chance to believe about product benefits and prescribe it for patients”.

As much as 60.7% of respondents stated that the impact of selling skills on achieving sales was very important. This shows that most of the population involved in this study stated that the impact of selling skills on sales performance is very important. More medical representatives believe that selling skills is more important to implement than product knowledge. “Product knowledge is indeed important to understand because it is basic information that we need to know and convey to doctors. But the right delivery technique, through selling skills is even more important to be mastered in the area to deal with different doctor characteristics” said one medical representative who met sales target.

Descriptive analysis of respondents' perceptions about the factors that influence sales performance is informed through the frequency distribution and the following explanation:

Table IV.1. Factors influencing sales performance

Factors	Frequency	Percentage
Product knowledge	26	18.6%
Good relationship with doctor	24	17.1%
Selling skill	24	17.1%
Area knowledge	19	13.6%
Right marketing activities	12	8.6%
Sponsorship	7	5.0%
Right target doctor	6	4.3%
Rational sales target	3	2.1%
Action plan	2	1.4%
Good relationship with hospital pharmacist	7	5.0%
Leadership	2	1.4%
Personal branding	2	1.4%
Product excellent	2	1.4%
Employee welfare	1	0.7%
Routine follow up	1	0.7%
Training material using video	1	0.7%
Work initiative	1	0.7%
Total	140	100%

From one medical representative who achieved sales target and mentioned that good relationship with the doctor was a factor that affected sales performance, information was obtained as “The majority of doctors who prescribed triple pill combination drugs were doctors who had been approached by the medical representative for a long time. These types of doctors previously already prescribed antihypertension drug single pill combination (the former drug sell by the same medical representative). Relationships that have been established for a long time make it easier for us to get longer discussion times when doctors finish practicing or in the form of discussions outside the hospital”.

With good relationships, medical representatives can also convey information to doctors through informal communication media, for example via WhatsApp chat or on other social media platforms. “Meetings with doctors can also be held not only in a scientific capacity, but also in a more friendly atmosphere, such as

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friendly gatherings during religious holidays, congratulating the doctor on his birthday or joint sporting activities”, stated by another medical representative.

Area knowledge is also one of the top 5 factors that influence the success of medical representatives in achieving sales targets. Medical representatives who achieve sales targets generally know exactly the doctor's schedule of practice at the hospital as well as the most appropriate time to see a doctor (after or before practice). The ability to recognize and interact with supporting stakeholders in the hospital, such as nurses who provide access to the doctor's room or pharmacy staff who give approval for drug licensing is also something that needs to be considered for the success of achieving sales targets. “Sometimes we have to see a doctor who is very busy with patient consultation schedules, thus why we also need to approach the nurse to get permission to enter the doctor's room”, remarking that explicit knowledge about supporting factors in the area is also important to obtain.

Other medical representative who achieved sales targets stated that appropriate marketing activities also affected the achievement of sales targets. “After conducting a focus group discussion with the target doctor, usually there will be more drug prescriptions. Likewise, after carrying out Round Table Meeting activities with one key opinion leader doctor as a speaker in front of several peers’ doctors as audiences, usually several days after those meeting there is incremental number of prescriptions from doctors who attend those scientific session”

Analysis of the relationship between product knowledge and sales performance can be seen in the following table:

Table IV.2. Relationship analysis between Product Knowledge and Sales Performance

Product Knowledge	Sales Performance				Number		P Value
	Unmet target		Met target				
	N	%	n	%	n	%	
Not qualified	4	14.3%	5	17.9%	9	32.1%	0.371
Expected Values	2.6		6.4		9		
Qualified	4	14.3%	15	53.6%	19	67.9%	
Expected Values	5.4		13.6		19		
Total	8	28.6%	20	71.4%	28	100%	
Total Expected Values	8		20		28		

The calculation results show that out of 28 populations, 14.3% of respondents who did not pass the product knowledge category, did not reach the target in terms of sales performance. Then 17.9% of respondents who did not pass the product knowledge category, had the category of achieving targets in sales performance. Furthermore, 14.3% of respondents who have a pass category in product knowledge, have a category that does not reach the target in achieving sales. Then 53.6% of respondents who have a pass category in product knowledge, have a category of achieving targets in sales achievement.

Based on the expected values of the relationship between product knowledge and sales performance, it is known that 25% (1) cells produce expected values less than 5. Thus, testing the relationship between product knowledge and sales performance is carried out using the Fisher's Exact test. Based on the table above, it is known that the Fisher's Exact probability value is 0.371. These results indicate probability > level of significance (alpha ($\alpha=5\%$)). Thus, it can be stated that there is no significant relationship between product knowledge and sales performance.

Analysis of the relationship between selling skills and sales achievement can be seen in the following table:

Table IV.3. Relationship analysis between Selling Skill and Sales Performance

Selling Skill	Sales Performance				Number		P Value
	Unmet target		Met target				
	n	%	n	%	n	%	
Not qualified	1	3.6%	3	10.7%	4	14.3%	1
Expected Values	1.1		2.9		4		
Qualified	7	25%	17	60.7%	24	85.7%	
Expected Values	6.9		17.1		24		
Total	8	28.6%	20	71.4%	28	100%	
Total Expected Values	8		20		28		

The results of the calculation show that out of 28 respondents, 3.6% of the respondents who did not pass the selling skills category did not reach the target in terms of sales achievement. Then 10.7% of respondents who did not pass the selling skills category had the category of achieving targets in sales achievement. Furthermore, 25% of respondents who have a pass category in selling skills, have a category that does not reach the target in achieving sales. Then 60.7% of respondents who have a pass category in selling skills, have a category of achieving targets in sales achievement.

Based on the expected values of the relationship between selling skills and sales performance, it is known that 50% (2) cells produce expected values less than 5. Thus, testing the relationship between selling skills and sales performance is carried out using the Fisher's Exact test. Based on the table above, it is known that the Fisher's Exact probability value is 1. These results indicate probability > level of significance ($\alpha=5\%$). It can be stated that there is no significant relationship between selling skills and sales performance.

The following is the result of testing the relationship between sales performance and the factors that influence sales performance by combining product knowledge categories into product knowledge-selling skills:

Table IV.4. Testing the relationship between sales performance and the factors that influence sales performance

Sales Performance	Factors that influence sales performance				Number		P Value
	Product knowledge-selling skill		Good relationship with doctor				
	n	%	N	%	n	%	
Unmet Target	2	7.1%	6	21.4%	8	28.6%	0.03
Expected Values	4.9		3.1		8		
Met Target	15	53.6%	5	17.9%	20	71.4%	
Expected Values	12.1		7.9		20		
Total	17	60.7%	11	39.3%	28	100%	
Total Expected Values	17		11		28		

The results of the calculation show that out of 28 populations, 7.1% of respondents who do not reach the target category in terms of sales achievement, state that the factors influencing sales performance are product knowledge-selling skills. Next, 21.4% of respondents who did not reach the target in achieving sales stated that the factor influencing sales performance was a good relationship with doctors. Furthermore, 53.6% of respondents who have the category of achieving targets in sales achievement, stated that the factors that influence sales performance are product knowledge-selling skills. Next, 17.9% of respondents who have the category of achieving targets in sales achievement, stated that the factors that influence sales performance are good relations with doctors.

Based on the expected values of the relationship between sales performance and the factors that influence sales performance, it is known that 50% (2) cells that produce expected values are less than 5. Thus, testing the relationship between sales performance and factors affecting sales performance is carried out using the Fisher's Exact test. Based on the table above, it is known that the Fisher's Exact probability value is 0.030. These results indicate a probability < level of significance (alpha ($\alpha=5\%$)). It can be stated that there is a significant relationship between sales performance and the factors that influence sales achievement.

Logistic Regression Analysis

Logistic regression analysis is intended to obtain a model of the influence of product knowledge and selling skills on sales performance.

1. Goodness of Fit Model

The goodness of fit model is used to determine the suitability of the model with the observation data, namely whether the regression model formed is capable or feasible to be used to predict the relationship between the independent variables and the dependent variable. The test criteria states that if the probability > level of significance (α) then the model is declared to match the observation data. The results of the goodness of fit test can be seen in the following table:

Table IV.5. Hosmer and Lemeshow Test

Hosmer and Lemeshow Test		
Chi-square	Df	Sig.
0.022	1	0.881

The test results listed in the table above obtained a Chi-square test statistic of 0.022 with a probability of 0.881. The test results show that the probability > level of significance ($\alpha=5\%$), so that it can be stated that the model formed matches the observation data, that is, it is capable or feasible to be used to predict the effect of product knowledge and selling skills on sales performance.

2. Coefficient of Determination

The magnitude of the contribution of the effect of product knowledge and selling skills on sales performance can be seen through the coefficient of determination (Nagelkerke R²). The coefficient of determination (Nagelkerke R²) is 0.102 or 10.2%. This means that the sales performance variable can be explained by the product knowledge and selling skills variables of 10.2%. In other words, the contribution of product knowledge and selling skills to sales performance is 10.2%, while the remaining 89.8% is contributed by other variables not discussed in this study.

The results of the coefficient of determination can be seen in the following table:

Table IV.6. Coefficient of determination

Cox & Snell R Square	Nagelkerke R Square
0.071	0.102

V. CONCLUSION&RECOMMENDATION

5.1. Conclusion

1. Most Medical Representatives (67,9%) have qualification on Product Knowledge, nevertheless they were better on Selling Skill qualification (85,7%).
2. All Medical Representatives in Hypertension division were expected to achieved sales target, but in reality, only 71,4% achieved sales target. Thus, why this division is said to be underperform.
3. Most Medical Representative (60,7%) perceived that Product Knowledge is very important aspect to gain good Selling Skill. Good relationship with doctors, Product Knowledge and Selling skills were 3 top factors among other factors which have impact on sales achievement as stated by Medical Representatives.
4. Key significant finding from relationship analysis:
 - a) There is no significant relationship between product knowledge and selling skills,
 - b) There is no significant relationship between product knowledge and sales achievement.

- c) There is no significant relationship between selling skills and sales achievement
- d) There is a significant relationship between sales achievement and the factors that influence sales achievement (good relationship with doctors).
- e) Based on medical representatives' perception there were 5 main factors which have influence on sales performance: product knowledge, good relationship with doctor, selling skill, area knowledge and right marketing activities.

These factors influence sales performance similar with previous research conducted by Linh, 2019 and Simanjuntak&Tjandrawinata, 2011.

5.2. Recommendation

Based on several finding, business solution and plan; the author recommend on several activities to resolve the problems:

1. Market research is carried out by marketing to obtain more accurate market data related to the antihypertensive market situation, target doctors and competitor activity
2. Conduct training to improve the ability of medical representatives to establish good relationships with doctors.
3. Sharing sessions with top achiever medical representatives so that other colleagues can gain insight related the success of achieving sales targets.
4. Continue to conduct regular product knowledge and selling skill training with updated modules and materials.
5. Learning and development team collaborates with IT division and HR division to create a knowledge management system and familiarize knowledge sharing culture within the company.

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