A Study on Segment Reporting Practices of selected Pharmaceutical Companies in India

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Abstract: *Segment reporting denotes to the financial reporting of a company's operating segments or business units. Segment reporting allows companies to identify and evaluate the performance of individual business segments, which helps them to make informed decisions about allocating resources, investing in new businesses or product lines, and divesting underperforming businesses. It also assists in identifying trends and changes in business operations, which can be used to identify potential risks and opportunities. Segment reporting practices in the pharmaceutical industry in India are focused at providing transparency and better understanding of a company's financial performance and operations to investors, stakeholders, creditors and the general public. In the pharmaceutical industry, companies usually operate in multiple segments such as research and development, manufacturing, marketing, and distribution. In India, pharmaceutical companies are needed to follow the Indian Accounting Standard 108 (Ind AS 108) for segment reporting. The standard requires companies to report information about their operating segments, including revenue, expenses, assets, and liabilities. The scope of this study is to furnish insight into segment reporting practices of Dr Reddys Labs, Hikal Ltd, Dishman Carbogen Amcis Ltd, Zydus Lifesciences Ltd. and Fortis Healthcare Ltd. The present study covers a period of 7 years starting with the year 2018 to 2024. The researcher collected secondary data out of the annual reports of chosen pharmaceutical companies, journals, magazines, newspapers, and websites. By divulging segment-specific information, a company can provide a better understanding of the performance of its different business segments and the factors that influence their profitability and growth potential.*

Keywords: *Segment Reporting, Business Operation, Business Segment, Panel Regression, Hausman Test*

Introduction

Segment reporting is the procedure of presenting financial information about the different operating segments or divisions of a company in its financial statements. It entails identifying the different business segments that make up the company and reporting financial information about each segment separately. This information can be utilised by stakeholders such as investors, analysts, and regulators to better understand the company's operations, financial position, and

potential risks. Segment reporting typically requires analyzing a company's revenue, expenses, assets, and liabilities for each business segment or geographic region in which the company operates. This can assist stakeholders identify which segments of the company are performing well and which ones may be struggling, allowing them to make more informed investment decisions. Segment reporting is especially important for companies with diverse operations or business units, as it can help provide a clearer picture of the overall health of the organization. In many cases, companies are required to prepare segment reporting as part of their financial reporting obligations, as mandated by accounting standards such as International Financial Reporting Standards (IFRS) and Generally Accepted Accounting Principles (GAAP). The main goals of segment reporting are to disclose information about the different business segments or geographic areas in which they operate. In order to give consumers information on profit, relative size, contribution, and growth trend, this includes revenue, profit or loss, assets, liabilities, capital expenditure, and other pertinent information. An operating segment should be regarded reportable if its revenue from inter segmental sales and sales to external customers accounts for 10% or more of the total revenue of all operating segments, both internal and external; if its segment result, whether it be profit or loss, is 10% or more of the total operating segment profit or loss, whichever is higher in absolute terms; or if its segment assets represent 10% or more of the total operating segment assets. Despite its size, an operating segment that is not a reportable segment according to the previous paragraph may be categorized as such at the enterprise's management's discretion. Additional segments, even if they do not meet the 10% thresholds, should be designated as reportable segments until at least 75% of the total enterprise revenue is included in reportable segments if the total external revenue attributable to reportable segments is less than 75% of the total enterprise revenue. Ind AS 108 requires companies to identify operating segments based on the information provided by the CODM (chief operating decision maker). Ind AS 108 increases financial transparency by providing segment-specific data, which is particularly valuable in the pharmaceutical industry, known for its varied product lines and market-specific strategies. For stakeholders, especially investors, this level of information helps in evaluating the risks and returns associated with different operating segments, supporting more informed decision-making and evaluation of company value. Segment Reporting provides advantage to each type of stakeholder for instance investors use segment data to assess performance, creditors rely on it to evaluate risk, regulators and general public benefit from the transparency it provides.

Review of Literature

Aleksandra Sulik-Górecka's (2020) work titled "Information Value of the Segment Reporting in the Polish Energy Sector" examines the segment reporting practices of companies in the energy sector in Poland. The study points to determine the information value of segment reporting and its usefulness in decision-making. The study employed content analysis to analyze the annual reports of companies in the energy sector listed on the Warsaw Stock Exchange. The study elevate that segment reporting was widespread in the sector, but the level of detail provided varied significantly between companies. The study also set up that the information disclosed in the segment reporting had a high level of relevance and usefulness for decision-making. The paper "The extent of segmental reporting and its value relevance: cross-country evidence" by Ghassan H. Mardini, Yasean Tahat, and David Power was published in the Journal of Applied Accounting Research in (2018). The study scrutinises the extent of segmental reporting (SR) by companies in different countries and its value relevance, which refers to the extent to which accounting information is useful to investors and other stakeholders in making decisions. The authors collected data from the annual reports of companies listed in stock markets in six countries

(Australia, Canada, Jordan, Malaysia, Saudi Arabia, and the United States) and examine the relationship between SR and the companies' stock prices. The study established that the level of SR varies significantly across countries, with the highest level in the US and the lowest level in Jordan. Sandra J. Cereola, Nancy B. Nichols, and Donna L. Street (2017) the article centre on changes in geographic segment disclosures under International Financial Reporting Standards (IFRS) 8 by blue chip companies in Europe, Australia, and New Zealand. Specifically, the article look into how changes in materiality and fineness affect the way these companies report geographic segment information. The article recommends that changes in materiality and fineness can affect how companies report this information, and that there may be differences in reporting practices across different countries. Aleksanyan and Danbolt's (2015) article "Segment reporting: is IFRS 8 really better?" in Accounting in Europe critically assesses the effectiveness of International Financial Reporting Standards (IFRS) 8 on segment reporting. The article states that while IFRS 8 is an improvement over its predecessor, International Accounting Standard (IAS) 14, it still has some limitations. IFRS 8 requires companies to report financial information about their operating segments, which are defined as components of an entity that engage in business activities from which it may earn revenue and incur expenses, and for which separate financial information is available. They propose that companies may have incentives to manipulate their segment reporting to meet analysts' expectations and to manage earnings. The article also notes that IFRS 8 does not provide direction on how to identify reportable segments in certain situations, such as when an entity operates in multiple jurisdictions. The article "Operating Segments" by Crawford, Louise; Extance, Heather; Helliar, Christine; and Power, David was published in the Journal of Business Finance & Accounting in (2012). The article talks about the importance of identifying and reporting operating segments in financial statements, as required by International Financial Reporting Standard (IFRS) 8. The authors assert that proper identification of operating segments can provide valuable information to investors and other stakeholders about a company's performance and prospects. The article lay out an overview of the key requirements of IFRS 8 and discusses some of the challenges companies may face in identifying and reporting operating segments. Pamela Edwards (2012) Segmental Reporting: A Preparers' Perspective" is an article that discusses segmental reporting from the perspective of preparers. Segmental reporting is the application of disclosing financial information about the different business segments of a company. This is typically done to supply investors with a better understanding of the company's performance and to help them make informed investment decisions. The article ventilates the benefits of segmental reporting, including the ability to identify areas of the business that are performing well or poorly, to allocate resources more effectively, and to improve overall decision-making. The paper "The effect of SFAS No. 131 on the cross-segment variability of profits reported by multiple segment firms" by Michael L. Ettredge, Soo Young Kwon, David B. Smith, and Mary S. Stone was published in the Journal of Accounting and Public Policy in (2006). SFAS No. 131 mentions to a Financial Accounting Standards Board (FASB) rule that requires firms to report financial information about their operating segments. The rule was deliberated to improve transparency and comparability of financial information among different segments of a company. The paper inspect the effect of SFAS No. 131 on the cross-segment variability of profits reported by multiple segment firms. Michael Aitken, Cameron Hooper, and Joanne Pickering (1997) inquire into the factors that influence the voluntary disclosure of segment information by companies. Specifically, they re-examined the role of diversification strategy in this process. Diversification strategy alludes to the extent to which a company operates in multiple markets or industries. The authors hypothesized that companies with substantial levels of

diversification would be more likely to disclose segment information, as this would be useful for investors to understand the performance of different parts of the business. The study applied a sample of 112 Australian companies and analyzed their annual reports for the years 1990-1992. The authors endowed that diversification strategy was indeed a significant determinant of voluntary segment disclosure, with more diversified companies being more likely to disclose segment information. The paper by Jason D. Mitchell, Chris W. L. Chia and Andrew S. Loh titled "Voluntary Disclosure of Segment Information: Further Australian Evidence" was published in the Australian Accounting Review in (1995). The paper studied the extent and quality of voluntary segment information disclosures made by Australian companies, and investigates the factors that influence such disclosures. The authors collected data from a sample of 138 Australian companies listed on the Australian Stock Exchange, and inspect their annual reports to identify the level and quality of voluntary segment information disclosures. They also collected data on company characteristics such as size, industry type, and profitability, and inquire into whether these factors were related to the extent and quality of segment disclosures. The findings of the study put forward that Australian companies generally provide limited voluntary segment information disclosures. The authors floated that only about 40% of the sample companies provided any voluntary segment information, and that the quality of the disclosures was generally poor. Alexander J. Sannell's article "Segment Reporting: The Cost Allocation Issue" published in (1991) in the Journal of Business Finance & Accounting, prospect the challenges and controversies surrounding cost allocation in segment reporting. Segment reporting refers to the use of breaking down a company's financial statements into smaller, more meaningful parts, such as geographic regions or product lines, to provide investors and other stakeholders with a more detailed understanding of the company's performance. Cost allocation rest a crucial role in segment reporting, as it involves assigning costs to each segment based on the resources used by that segment. Sannell stated that there are several challenges and controversies associated with cost allocation in segment reporting.

Objectives of the Study

The objective of the study is:

1. To analyze the segment reporting practices in selected pharmaceutical companies
2. To assess compliance with Ind AS 108
3. To examine how segment-specific data influences financial transparency and decision-making

Hypotheses of the Research Work

1. There is no relationship between Segment Result and other variables Segment Assets and Segment Revenue.
2. There is no significant difference in business segment revenues among the selected Pharmaceutical Companies.
3. There are no significant differences in business segment result among the selected Pharmaceutical Companies.

Research Method

In our present study exploratory research will be conducted using existing literature. Secondary data is collected from the annual reports of Dr Reddys Labs, Hikal Ltd, Dishman Carbogen Amcis Ltd, Zydus Life sciences Ltd. and Fortis Healthcare Ltd., journal, magazines, newspapers and web sites. The period of the study covers seven years ranging from 2018 to 2024. The study consists of Top 10 pharmaceutical industries as per their market capitalization Listed by BSE. These companies were selected due to their significant market presence, varied segment operations and relevance within India's pharmaceutical sector. The research has used statistical tools like Panel Regression, ANOVA, Post-Hoc test. Panel regression is a statistical modelling method that analyzes data that has both cross-sectional and time series components. OLS Regression is used to identify any significant relationships

between segment result, segment revenue, and segment assets to infer the impact of segment disclosures on company performance. Hausman test is used to determine the appropriateness of random effects in panel data analysis. Tukey test is a post hoc test commonly used to assess the significance of differences between pairs of group means. Panel Regression has been recognized and utilized by various researchers in prior studies (Saleh, 2023). For carrying out statistical analysis STATA 15 & SPSS 23 application package has been used.

Analysis & Results

H_{01}:"There is no relationship between Segment Result and other variables Segment Assets and Segment Revenue".

The following table shows the Segment Result, Segment Revenue and Segment Assets of selected Pharmaceutical Companies during the period 2018-2024

Table 1: Segment Result, Segment Assets and Segment Revenue

'Segment Result'	'Segment Revenue'	'Segment Assets'	Company	Year
7633.5	14828.2	22544.21	Dr Reddys Labs	2018
8345.8	16026.5	22465.56	Dr Reddys Labs	2019
9403.8	18108	23225.23	Dr Reddys Labs	2020
10309.5	19738	26616.59	Dr Reddys Labs	2021
11385.3	22170.7	29746.99	Dr Reddys Labs	2022
13936.1	25427.4	32285.1	Dr Reddys Labs	2023
16362.4	29089	38963.8	Dr Reddys Labs	2024
185	1300.1	1541.7	Hikal Ltd	2018
241	1589.6	1685.5	Hikal Ltd	2019
227.2	1507.3	1768.48	Hikal Ltd	2020
273.2	1720.4	1913.2	Hikal Ltd	2021
266.1	1942.7	2213	Hikal Ltd	2022
168.3	2023.1	2385.5	Hikal Ltd	2023
167.8	1784.6	2487.13	Hikal Ltd	2024
234	1652.7	7176.5	Dishman Carbogen Amcis Ltd	2018
311.5	1920	7328.5	Dishman Carbogen Amcis Ltd	2019
214.7	2043.6	8199.79	Dishman Carbogen Amcis Ltd	2020
163.8	1912	8324.6	Dishman Carbogen Amcis Ltd	2021
95.4	2140.7	8637.5	Dishman Carbogen Amcis Ltd	2022
105.9	2412.9	9453.5	Dishman Carbogen Amcis Ltd	2023
124.7	2615.8	9611.39	Dishman Carbogen Amcis Ltd	2024
1705.1	13640.7	12163.7	Zydus Lifesciences Ltd	2018
1795.6	13821.3	13671.1	Zydus Lifesciences Ltd	2019
1859	14253.1	16551.5	Zydus Lifesciences Ltd	2020
2604.3	14403.5	18463.6	Zydus Lifesciences Ltd	2021
2725.4	15265.2	17740	Zydus Lifesciences Ltd	2022
3193.9	17237.4	20563.6	Zydus Lifesciences Ltd	2023
4823.1	19547.4	24084.8	Zydus Lifesciences Ltd	2024
266	3865.2	5015.7	Fortis Healthcare Ltd	2018
286.3	4199.4	10120.3	Fortis Healthcare Ltd	2019
317.8	4769.5	10580.9	Fortis Healthcare Ltd	2020
131.2	4158.3	10582.1	Fortis Healthcare Ltd	2021
768.1	5868.5	10426.2	Fortis Healthcare Ltd	2022
785.4	6454.9	10368.7	Fortis Healthcare Ltd	2023
925.5	7057.9	10386.9	Fortis Healthcare Ltd	2024

Source: Self Compiled

To study the relationship between segment result, segment revenue and segment assets we carry out OLS Regression Analysis. In this analysis, the segment result was treated as the dependent variable, while segment revenue and segment assets are the independent variables. The seven years information of independent variables and dependent variable has been pooled to have a panel data and afterward pooled OLS regression has been applied on it. The following table summarizes the results of the above analysis

OLS Analysis: OLS Regression Model

Segment result=$\alpha+\beta_1$ Segment revenue + β_2Segment assets + ε

Table 2: OLS Analysis

Source	SS	Df	MS
Model Residual	570218694 104938868	2 32	285109347 3279339.62
Total	675157562	34	19857575.4

Source: Authors' computation using STATA 15

Table 3: OLS Analysis

'Number of obs'	35
'F(2,32)'	86.94
'Prob>F'	0.0000
'R-squared'	0.8446
'Adj R-squared'	0.8349
'Root MSE'	1810.9

Source: Authors' computation using STATA 15

Table 4: OLS Analysis

Segment result Segment revenue	Coef. .1012244	Std. Err. .1332609	t 0.76	'P>t' .453	'95% Conf. Interval' -.1702191 .372668
Segment assets	.3425129	.1130701	3.03	.005	.112203 .5728355
_cons	-2486.058	565.8013	-4.39	.000	-3638.557-1333.558

The results of OLS Regression analysis exhibit that the p-value of segment revenue i.e. .453 is greater than the level of significance i.e.0.05. Since the p value is greater than 0.05, that term is not statistically significant at 95.0% confidence interval. The p-value of segment assets i.e. .005 is less than the level of significance i.e.0.05. Thus the variable segment asset is significant to influence the segment result at 5% level of significance. The R Squared value (0.8446) exhibits the model as fitted and explains 84.46% variance in the segment result. While the R-Squared value gives an indication of the explanatory power of the model, it is also crucial to consider the Adjusted R-squared value. The gap between R square and Adjusted R Square value is less, which is a sign of good model specification. A small difference typically suggests that the model is well-specified effectively capturing the essential dynamics between the independent variables and dependent variable. Overall, these results underscore the significance and reliability of the

regression model, demonstrating that the selected independent variables collectively provide a substantial explanation for variations in the segment result. The statistical significance along with the balanced nature of the panel data and the model's good specification, contribute to a robust understanding of the factors influencing segment result.

Fixed Effect Model and Random Effect Model

Table 5: Fixed Effect Regression Model

R-sq: 'Within' 'Between' 'Overall'	 0.9582 0.7873 0.8022
'Corr(u_i, xb)'	-0.3128

Source: Authors' computation using STATA 15

Table 6: Fixed Effect Regression Model

'Number of obs'	35
'Number of groups'	5
'Obs per group': Min Avg Max	 7 7.0 7
'F(2,28)'	321.28
'Prob>F'	0.0000

Source: Authors' computation using STATA 15

Table 7: Fixed Effect Regression Model

Segmnt result	Coef.	Std. Err.	T	P>t	[95% Conf. Interval]	
Segment revenue	.5565407	0.057483	9.68	0.000	0.4387922	0.6742892
Segment assets	.010041	.0428731	0.23	0.817	-.0777806	.0978626
Cons	-2240.364	226.0774	-9.91	0.000	-2703.426	-1777.265
sigma_u	2275.0704					
sigma_e	315.69875					
rho	0.98110822					

Source: Authors' computation using STATA 15

Under the Fixed Effect Model, the prob>F value is 0.0000 which is less than the level of significance i.e. 0.05. It means that all the coefficient of the model is not equal to 0, suggesting that each variable has a meaningful impact on the dependant variable. It means that the model is good and nicely fitted, making it a reliable tool for understanding the relationships between the variables.

Therefore, the model as per OLS Analysis-Fixed effect Regression

$$\text{Segment result} = C + \beta_1 \text{ Segment revenue}_{it} + \beta_2 \text{Segment assets}_{it} + \varepsilon_{it}$$

Segment result=-2240.364+0.5565407 Segment revenue+.010041 Segment $\text{assets}_{it}+\varepsilon_{it}$

Overall, the model demonstrates that the independent variable collectively provide a robust explanation of the variations in segment result. The significance of the coefficients and the model's overall fit indicate that it is a well-specified and effective model for analyzing the factors influencing Segment Result.

Table 8: Random Effect Regression Model

'R-sq': 'Within' 'Between' 'Overall'	 0.9582 0.7883 0.8031
'Corr(u_i, x)'	0 (assumed)

Source: Authors' computation using STATA 15

Table 9: Random Effect Regression Model

'Number of jobs'	35
'Number of groups'	5
'Obs per group': Min Avg Max	 7 7.0 7
'Wald chi2(1)'	672.18
'Prob>chi2'	0.0000

Source: Authors' computation using STATA 15

Table 10: Random Effect Regression Model

Segment result	Coef.	Std. Err.	z	P>z	[95% Conf. Interval]	
Segment revenue	0.549708	0.0562305	9.78	0.000	.4394983	.6599177
Segment assets	.0140526	.0420524	0.33	0.738	-.0683686	.0964739
cons	-2231.221	1163.259	-1.92	0.055	-4511.16	48.72459
sigma_u	2592.1676					
sigma_e	315.69875					
rho	0.9853841					

Source: Authors' computation using STATA 15

In the Random Effect Regression model, the analysis results in a prob>chi2 value of 0.0000 which is below the level of significance i.e. 0.05. It means that all the coefficient of the model is not equal to 0. In other words, the coefficients in the model are statistically significant, signifying that independent variables have a meaningful impact on the dependent variable.

It means that the model is good and well-fitted, providing a reliable representation of the relationships between the variables. Consequently, we can say that a significant portion of the segment result may be explained by the segment revenue and segment assets variable.

Therefore, the model as per OLS Analysis-Random effect Regression

Segment result=C+â$_1$ Segment revenue$_{it}$+â$_1$ Segment assets$_{it}$+z2 iã + åÞ$_{it}$

Segment result=-2231.221+.549708 Segment revenue+.0140526 Segment assets$_{it}$+z2 iã + åÞit

Overall, the model provides a well-specified and effective framework for understanding the factors that influence the Segment Result. The statistical significance of the coefficients, combined with the model's good fit, indicates that it is a reliable tool for analyzing the impact of the selected variable on Segment Result.

Hausman Test

The Hausman Test is used to differentiate between fixed effect model and random effect model in panel data.

H_{01}: The preferred model is random effect

H_1: The preferred model is fixed effect

Table 11: Hausman Fixed

	---Coefficients---			
	(b) Fixed	(B) Random	'(b-B)' Difference	'sqrt(diag(V_b-V_B)) S.E.
segmentrev~e	0.5565407	0.549708	0.0068327	0.0119342
segmentass~s	.010041	.0140526	-.0040116	.0083486

Source: Authors' computation using STATA 15

Table 12: Hausman Fixed

Chi2(2)	0.34
'Prob>chi2'	0.8452

Source: Authors' computation using STATA-15

The following table reveal that Prob>chi2 value is 0.8452, which is greater than the significance level of 0.05. As a result, the null hypothesis is rejected, which indicates that the model has random effects, rather than fixed effects. As a result, the Random Effect Model is considered the most effective fit model.

The results of Hausman test implicit that the Random Effect model is more suitable for this study. The Hausman test is employed to distinguish between fixed effect model and random effect model in panel analysis.

As per the findings, Random Effect model is considered the best fit for analysing the data in this study. This model allows for individual-specific effects that vary across entities but remain constant over time, which is particularly useful when dealing with panel data. The Random Effects model provides a more generic approach, assuming that the individual entity's error term is not correlated with the explanatory variables, thereby allowing the results to be more widely applicable.

H_{02}: "There is no significant difference in business segment revenues among the selected Pharmaceutical Companies"

To study the significant difference between segment revenues among the selected pharmaceutical companies, One Way ANOVA is carried out.

The following table summarises the results of the above analysis

Table 13: ANOVA

Segment Revenue

	'Sum of Squares'	'Df'	'Mean Square'	'F'	'Sig.'
'Between Groups'	2069154080.678	4	517288520.170	78.444	.000
'Within Groups'	197830990.217	30	6594366.341		
'Total'	2266985070.895	34			

Source: *Authors' computation using SPSS 23*

Since the Sig. value (0.000) is less than 0.05, the null hypothesis is rejected. It can be concluded that there is statistically significant difference between the means of the segment revenue of selected pharmaceutical companies at a significance level of 5%. It is concluded from the above table that at least one of the group means is significantly different from the others. To identify these differences, researcher has conducted a Post-Hoc follow up test using Tukey HSD test.

Table 14: Post-Hoc test (Pair-wise comparison using Tukey HSD test)

Company's Pairs	p-value
Dr Reddy Lab-Hikal Ltd	**.000**
Dr Reddy Lab-Dishman Carbogen	**.000**
Dr Reddy Lab-Zydus Lifesciences	**.005**
Dr Reddy Lab-Fortis Healthcare	**.000**
Hikal Ltd- Dishman Carbogen	.998
Hikal Ltd- Zydus Lifesciences	**.000**
Hikal Ltd- Fortis Healthcare	.106
Dishman Carbogen- Zydus Lifesciences	**.000**
Dishman Carbogen- Fortis Healthcare	.187
Zydus Lifesciences- Fortis Healthcare	**.000**

Source: Authors' computation using SPSS 23

For Post-hoc test, researcher has used Tukey HSD test for pair-wise comparison in order to identify the reason of difference in segment revenue among the selected group of company. Researcher has identified different pairs for analysis (Table 14). The p value of the pair Dr Reddy Lab-Hikal Ltd, Dr Reddy Lab-Dishman Carbogen, Dr Reddy Lab-Zydus Lifesciences, Dr Reddy Lab-Fortis Healthcare, Hikal Ltd- Zydus Lifesciences, Dishman Carbogen- Zydus Lifesciences and Zydus Lifesciences- Fortis Healthcare are less than 0.05 (α=0.05, Confidence level=95%), hence it can be said that Segment Revenue of above mentioned Pair are different from each other. Because of these differences, the null hypothesis H_{02} has been rejected.

H_{03}: "There is no significant difference in business segment result among the selected Pharmaceutical Companies"

To study the significant difference between segment results among the selected pharmaceutical companies, One Way ANOVA is carried out.

The following table summarises the results of the above analysis

Table 15: ANOVA

Segment Result

	'Sum of Squares'	'df'	'Mean Square'	'F'	'Sig.'
'Between Groups'	608326224.599	4	152081556.150	68.268	.000
'Within Groups'	66831343.049	30	2227711.435		
'Total'	675157567.647	34			

Source: Authors' computation using SPSS 23

Since the Sig. value (0.000) is less than 0.05, the null hypothesis is rejected. It can be concluded that there is statistically significant difference between the means of the segment result of selected pharmaceutical companies at a significance level of 5%.It is concluded from the above table that at least one of the group means is significantly different from the others. To identify these differences, researcher has conducted a Post-Hoc follow up test using Tukey HSD test.

Table 16: Post-Hoc test (Pair-wise comparison using Tukey HSD test)

Company's Pairs	p-value
Dr Reddy Lab-Hikal Ltd	**.000**
Dr Reddy Lab-DishmanCarbogen	**.000**
Dr Reddy Lab-ZydusLifesciences	**.000**
Dr Reddy Lab-Fortis Healthcare	**.000**
Hikal Ltd- DishmanCarbogen	1.000
Hikal Ltd- ZydusLifesciences	**.033**
Hikal Ltd- Fortis Healthcare	.997
DishmanCarbogen- ZydusLifesciences	**.030**
DishmanCarbogen- Fortis Healthcare	.994
ZydusLifesciences- Fortis Healthcare	.073

Source: Authors' computation using SPSS 23

For Post-hoc test, researcher has used Tukey HSD test for pair-wise comparison in order to identify the reason of difference in segment result among the selected group of company. Researcher has identified different pairs for analysis (Table 16. The p value of the pair Dr Reddy Lab-Hikal Ltd, Dr Reddy Lab-Dishman Carbogen, Dr Reddy Lab-Zydus Lifesciences, Dr Reddy Lab-Fortis Healthcare, Hikal Ltd- Zydus Lifesciences and Dishman Carbogen- Zydus Lifesciences are less than 0.05(á=0.05, Confidence level=95%), hence it can be said that Segment Result of above mentioned Pair are different from each other. Because of these differences, the null hypothesis H_{03} has been rejected.

Findings of the Study

OLS Regression Analysis has been used to study the relationship between segment result, segment revenue and segment assets. In this analysis, the segment result was treated as the dependent variable, while segment revenue and segment assets are the independent variables. The seven years information of independent variables and dependent variable has been pooled to have a panel data. As per Hausman Test, Random Effect model is considered the best fit for analysing the data in this study.

The null hypothesis is rejected since the Sig. value (0.000) is less than 0.05. It can be concluded that there is statistically significant difference between the means of the segment revenue of selected pharmaceutical companies at a significance level of 5%.The p value of the pair Dr Reddy Lab-Hikal Ltd, Dr Reddy Lab-Dishman Carbogen, Dr Reddy Lab-Zydus Lifesciences, Dr Reddy Lab-Fortis Healthcare, Hikal Ltd- Zydus Lifesciences, Dishman Carbogen- Zydus Lifesciences and Zydus Lifesciences- Fortis Healthcare are less than 0.05 (á=0.05, Confidence level=95%), hence it can be said that Segment Revenue of above mentioned Pair are different from each other.

As the Sig. value (0.000) is less than 0.05, the null hypothesis is rejected. It can be concluded that there is statistically significant difference between the means of the segment result of selected pharmaceutical companies at a significance level of 5%.The p value of the pair Dr Reddy Lab-Hikal Ltd, Dr Reddy Lab-Dishman Carbogen, Dr Reddy Lab-Zydus Lifesciences, Dr Reddy Lab-Fortis Healthcare, Hikal Ltd- Zydus Lifesciences and Dishman Carbogen- Zydus Lifesciences are less than 0.05(á=0.05, Confidence level=95%), hence it can be said that Segment Result of above mentioned Pair are different from each other.

The study provides empirical evidence on the compliance with Ind AS 108 among Indian pharmaceutical companies, an area that has not been extensively explored, adding to the body of research on segment reporting. The study provides insights into how segment disclosures can be used to assess financial performance for

better-informed investment decisions. Pharmaceutical companies are strengthened from the study's insights into how effective segment reporting can improve transparency and strengthen relationships with investors, creditors, and regulators. The study will likely discover performance trends across different segments, providing a clearer picture of areas which are driving growth or facing challenges within the pharmaceutical industry. Identifying notable improvements in segment reporting post-Ind AS 108 adoptions showcases how the standard has enhanced financial transparency and consistency in reporting.

Conclusion

Segment reporting is a pivotal aspect of financial reporting that provides relevant information to stakeholders about the performance and financial position of different segments of a company. It permits companies to assess the performance of their various business segments separately and make informed decisions accordingly. Segment reporting aids stakeholders; such as investors, analysts, and regulators, to better understand the underlying performance of a company's different business segments and evaluates their risks and opportunities. It allows companies to identify and allocate resources effectively, assess the profitability and growth prospects of each segment, and make strategic decisions based on segment-level information. Segment reporting also boosts transparency and accountability in financial reporting, as it requires companies to disclose detailed information about their operating segments, geographical segments, and other relevant segments. This encourages transparency and helps stakeholders assess the financial health of a company more accurately. The study delves into segment reporting practices among prominent Indian pharmaceutical companies, focusing on their compliance with Ind AS 108 and the implications for transparency and financial accountability. By analyzing segment revenues, result, and asset, it aims to apex how detailed segment disclosures can enhance decision-making for stakeholders, including investors, regulators, and company management. Segment reporting is mostly important in the pharmaceutical sector due to its complex operations and diverse product lines, as it provides stakeholders with a clearer understanding of a company's strategic focus and financial health. The findings underline the value of transparency in segment disclosures, offering insights that can guide regulatory improvements and support investors in making informed decisions.

Limitation of the Study

Segment reporting depends on the segments being categorically grouped as crucial for making economic judgments. The precise classification of segment-related costs and revenues also affects segment outcomes. Such expenses and earnings should be allocated on a suitable basis. The outcomes would change if the allocation technique were changed. The study time has been capped at seven years. The segment-wise analysis may see modest variations if more years have been used. All secondary data were used to create the study. Therefore, the inherent limitations of secondary data, as well as time and financial constraints, prevented the researcher from fully comprehending the additional complexities of this issue. More pharmaceutical sector units should be used as examples to reveal the segment reporting methods of pharmaceutical companies in India in order to paint a clearer picture. Companies may modify their segment definitions overtime to reflect changes in their business strategies or market conditions. This may present challenges in comparing segment performance across different periods, especially in a dynamic industry like pharmaceuticals.

Scope for Future Research

Based on segment reporting from selected pharmaceutical companies, the current analysis a future study may have a broader focus than what has been described below:

Research can be done to explore the impact of segment reporting on investment decisions, to determine whether segment disclosures have an

impact on a company's cost of capital. A cross-country comparison of segment reporting practices can be performed by using businesses from the same industry. Comparative research can be conducted to show the similarities and differences between the segment reporting practices across more companies or different industries. To determine how the stock market will react to the publication of segment information, a study on the impact of segment information on the stock market can be conducted. Adding quantitative analysis with qualitative research, such as interviews with company executives or auditors, could provide deeper insight into the motivations and challenges behind segment reporting decisions.

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