

An Analysis of Performance of Green Plywood Industries Limited

Ms Vaishali Rathore

Research Scholar, School of Business, Mody University of Science and Technology, Lakshmangarh, Rajasthan, India; vaishalirathore.rathore10@gmail.com

Dr Manish Didwania

Professor, School of Business, Mody University of Science and Technology, Lakshmangarh, Rajasthan, India; manishdidwania.sob@modyuniversity.ac.in

ABSTRACT

Performance of a company refers to profitability of the company or its capacity to earn the profits from its business operations. It is measured in terms of profitability of the company i.e., Operating, gross and net profit of the company during a period. Plywood sector of India is ancillary to majority of other industries operating in the country. This sector has evolved as one of the most needed sectors in the economy of the country. The growing importance of this sector signifies the need of studying the performance of the companies operating in there. Of late many researches have been conducted on the chemical composition of the product and the scientific method to increase the production of plywood industries but no dedicated research exists to analyse the financial performance of the plywood industries of India. Green Plywood Industries Ltd. is the largest ‘interior infrastructure corporate’ of India and is considered as the major giant of plywood industry of the country which makes it apt for being the representative of its respective industry for the purpose of analysing the financial performance. This research paper is an attempt to evaluating the financial performance of plywood giant ‘Green Plywood industries Ltd.’. This study will be extremely useful for the corporates to frame the structural understanding of their financial performance and to restructure it according to their targeted preferences. Further, this research will be also serving a base for further dedicated in-depth research on the subject of plywood industry and alike companies of India.

Keywords: Green Plywood Industries Limited, Plywood Industry, manufacture, sector, bamboo, profit, performance.

I INTRODUCTION

Plywood industry are the most important industry of the country in terms of construction as well as fashion requirements. Which marks it as the cog between all the types of manufacturing and interior decoration industry of the country and hence highlights the importance of analysing the financial performance of such companies. Performance of a corporate is measured in the terms of financial performance by analysing the profitability of the company. The best way to analyse the performance of a company is to evaluate the profits it is generating through its operations i.e. ‘operating profit of the company’; followed by evaluation of the companies efficiency to meet its operating and direct expenses through its turnover i.e. ‘gross profit’ of the company, returns generated by the company against the capital employed in there i.e. ‘return

on capital employed by the company’ and finally by studying the capacity of the company to meet all its indirect expenses too through its earnings, i.e. by analysing the ‘net profit’ of the company.

Indian plywood industry is one of the largest SME’s operating in the country which again signifies the trust of analysing the performance of the companies operating in this industry. Since most of the plywood industry of India are unorganized, which becomes the constraint of availability of the factual data for analysis a representative company namely Green Plywood Industries Ltd. was selected for the purposes of this study. Green Plywood Industries Limited is a corporate giant of the Indian plywood sector and is considered as largest ‘interior infrastructure corporate’ of India. The company is the largest supplier for the interior decoration sup-

plies in the country which makes it app for representing the peer corporates for analysing the profitability of the Indian plywood industry as a whole.

Various researched have been undertaken for analysing the company wise chemical composition of the plywood, veneer and adhesive used by them to increase the durability of the product. But the analysis of financial performance of such companies has not been studied by the researches till date. Financial performance of a company is a subjective matter and hence it cannot be predicted on the basis of financial performance of the heterogenous peers of the company. This study is an attempt to evaluate the financial performance of the Green Plywood Industries Limited as the representative company of the plywood industry of India. The study utilised statistical tools such as correlation analysis for establishing the relationship between the financial efficiency ratios of the Green Plywood Industries Limited i.e., the impact of 'Operating profit', 'Gross Profit' and 'Return of Capital Employed' over 'net profit' of the company. The analysis and conclusion of the study will serve as the guideline to frame the financial performance mission and targets of the Indian plywood companies and will also pave a path for further research on the subject matter apart from being a valuable addition to the literature.

II LITERATR REVIEW

Hutomo et.al. (2015) in their study titled "The impact of perceived environmental uncertainty supply chain performance and integrated domestic economy plywood manufacturer in Indonesia" analysed the impact of environment constraints over the plywood manufacturers of Indonesia and found that though positive impact of latent factors affects the performance of plywood industries yet the supply chain has to be considered as the most critical performance measure of such industry.

Šafařík et.al. (2015) in their paper titled "Losses in the amount of produced and sold timber". Studied the loses arising due to difference between production and sales of timber for taxation and accounting purposes. The study identified that differential measurement is one of the major reasons for recording loses in timber in-

dustry and exaggerated cost of production in timber industries.

Agwata, et.al. (2016) in their case study titled "Impact of the implementation of a new technology in achieving business objectives: a case of Rai Plywoods (Kenya) Ltd; implementation of a fleet management system" performed a case study to understand the impact of new-tech for achieving objectives of business of Rai Plywoods (Kenya) Ltd. by analysing the effect of fleet-management-system for preventing fuel-theft and cost reduction using the ratio analysis. The study concluded that innovative technology though involves increased costs in the beginning but eventually results in the reduction of recurring costs in the plywood industries and such industries can achieve the economies to scale by using innovative technology.

Samani et.al. (2016) in their paper titled "Performance evaluation of plywood prepared from fire retardant treated veneers" analysed the impact of pressure treatment on the performance of plywood using the burning rate and the test of flammability. They found that composition of phosphoric-acid has the most significant impact on the performance and strength of plywood.

Asare et.al (2017) in their study titled "NEW VISION FOR FOREST INNOVATIONS BIO-ECONOMY IN GHANA: A CASE STUDY OF SAMARTEX TIMBER AND PLYWOOD COMPANY" performed a case study to 3 the innovative approach of forest development on the timber and plywood company of Ghana by using secondary data. They concluded that raw material is the major constraint of plywood companies and comprises major portion of contingent cost of these industries. Innovative forests technology increases the production of timber and decreases the cost of major raw material of plywood industries.

De Oliveira, et.al. (2018). In their research title "Plywood experimental investigation and modelling approach for static and dynamic structural applications" analysed the stacking techniques of ply wood to test the durability of the end product using the experimental data models and found that the "classical laminate theory" holds true in respect of plywood products and can be used to increase the performance of the industry.

Li et.al. (2019). In their study titled “Effect of PVC film pre-treatment on performance and lamination of wood-plastic composite plywood” to analyse the impact of hot pressing on the performance of plywood industry. They found that hot pressing of veneer not only reduces the time of manufacture of plywood but also reduces the cost of production.

Yalico et.al. (2020). In their paper titled “Managers' Knowledge of Key Performance Indicators in Small and Medium Enterprises: Wood and Timber SMEs in Peru.” Analysed the KPI of wood & timber SMEs of Peru by using primary data collected through survey method. They found that existence of high variability amongst knowledge of the concepts KPI and low usage of such concepts. They found that knowledge of KPI is critical of wood and timber SME's and suggested that wood and timber industries should strive to attain higher levels of KP usage and adaptability.

Raghunath et.al. (2021). In their research titled “A Study on Impact of Sound Financial Management Practices on Financial Performance with Reference to Western India Plywood Ltd” analysed the effect of cash-management-practices over the profitability and found a strong correlation between the two. They also suggested practice on the part of manager to achieve better cash management for generating higher productivity levels. This study also suggested establishment of checks for correct recording of expenses in timber industries.

Setter et.al. (2021) in their study titled “Influence of wood species and adhesive type on the performance of multilaminate plywood” evaluated the impact of wood species and types of adhesives on the performance of plywood by analysing the mechanical and physical properties of end product. They found that performance of wood panel is directly significantly

correlated to the durability of the species of wood used for their production and end use of such product is also directly correlated to the durability of the plies produced as such.

III RESEARCH GAP AND PROBLEM STATEMENT

Review of literature depicted that many studies have been done for analysing the scientific and physical properties of the plywood industries of India but a dedicated research work to analyse the financial performance of such companies rest in research gap.

Objective of research

Following are the objectives of the research:

- To analyse the financial performance of the Green Plywood Industries Limited
- To establish statistical relationship between the financial performance ratios for identifying the major determinants of financial efficiency of Green Plywood Industries Limited

HYPOTHESIS

No significant difference exists amongst the performance and the profit of the Green Plywood Industries Limited

V. METHODOLOGY

Data of 10 years of Green Plywood Industries Limited was collected and analysed. Financial Efficiency of the company is analysed in terms of impact of OP (Operating Profit), GP (Gross Profit), ROCE (Return on Capital Employed) over the NP (Net Profit) of the company. The goodness of fit of the data was analysed by using Anova table. Predictability of NP is analysed by using coefficients. Variability of Data was analysed by using Durbin Watson test and finally correlation analysis was used to analyse the financial efficiency of the Green Plywood Industries Limited

VI. STATISTICAL ANALYSIS OF THE FINANCIAL EFFICIENCY OF GREEN PLYWOOD INDUSTRIES LTD

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
-------	---	----------	-------------------	----------------------------	---------------

1	.948 ^a	.899	.855	16.68471	1.180
---	-------------------	------	------	----------	-------

a. Predictors: (Constant), ROCE, OP, GP

b. Dependent Variable: NP

The table above shows the model-summary of financial efficiency analysis on the basis of ROCE, OP and GP. It can be seen that R square of the model is .899 which indicates

that financial efficiency factors show 89.9% variability with a highly significant impact on the profitability of the Green Plywood Industries Limited

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	17294.541	3	5764.847	20.709	.001 ^b
Residual	1948.656	7	278.379		
Total	19243.197	10			

a. Dependent Variable: NP

b. Predictors: (Constant), ROCE, OP, GP

The above table presents a snap of Anova goodness of fit using the F-test. The analysis depicts that identified factors of financial efficiency are the significant predictor of the Net profit of the Green Plywood Industries Limited the Sig. value of the model is .001

which is much less than .05 indicating the very high probability of getting same result at least as extreme as the one observed under this research which means that the model is a good fit of data.

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-36.840	19.792		-1.861	.105
OP	-.195	.429	-.291	-.454	.043
GP	.770	.399	1.260	1.930	.045
ROCE	1.027	.766	.188	1.341	.222

a. Dependent Variable: NP

The table above presents the glimpse of coefficient of relation between the identified factors of financial efficiency of the Green Plywood Industries Limited. The analysis reveals that amongst the factors identified for the purpose of analysing the financial efficiency of the company, OP and GP are the signifi-

cant predictor of the financial performance (sig value < 0.05) while ROCE is not the significant factor of financial performance of the company. The findings are well supported by the fact that performance of a company is measured by analysing its profitability.

Correlations				
		OP	GP	ROCE
NP	Pearson Correlation	.918**	.934**	-.056
	Sig. (2-tailed)	.000	.000	.870
	N	11	11	11

**. Correlation is significant at the 0.01 level (2-tailed).

Inferences:

The above table shows the correlation Matrix between the Independent Variables of the Study. The dependent variable is NPR while the independent variable is ITR, DTR and ATR.

The analysis depicts that:

Correlation among OP and NP:

- Pearson's value i.e., $r = .918$ signifies a high positive relationship among the two variables.
- There exists significant relationship among 'OP and NP' ($p = 0.000$) as p value for the relationship < 0.05 .

Interpretation: OP and NP are positively related and such relationship is statistically significant to highly influence the quantum of NP on grounds of movement in OP value.

Correlation among GP and NP:

- Pearson's value i.e., $r = 0.934$ signifies a high positive relationship among the two variables.
- There exists significant relationship among 'GP and NP' ($p = 0.000$) as p value for the relationship < 0.05 .

Interpretation: GP and NP are positively related and such relationship is statistically

significant to highly influence the quantum of NP on grounds of movement in GP value.

Correlation among ROCE and NP:

- Pearson's value i.e., $r = -0.56$ signifies a moderate negative relationship among the two variables.
- There exists no significant relationship among 'ROCE and NP' ($p = 0.870$) as p value for the relationship > 0.05 .

Interpretation: ROCE and NP are negatively related and such relationship is not statistically significant to influence the quantum of NP on grounds of movement in ROCE value.

VII CONCLUSION AND RECOMMENDATION

A quantitative analysis of the financial efficiency of the Green Plywood Industries Limited reveals that amongst the identified determinants of financial efficiency of the company, OP and GP are the highly significant determinant of the financial performance and profitability of the company while ROCE is not a significant predictor of performance of the company. The findings are also supported by the accounting concept of 'profitability and performance' which explains that the

company with higher operational profit witnesses better overall performance while ROCE is the net payment to the investors after deducting all the expenses and tax liabilities from the profit. Thus, results are authenticated both quantitatively and on accounting grounds.

On the basis of analysis, the study recommends efficient production and optimization of operating profit of Green Plywood Industries Ltd. by using operating level of 'economies and focusing on innovative technologies and tools to generate cost effective production.

VIII Limitation of Research

The results of the study are based on the analysis of data of recent 10 years of the Green Plywood Industries Ltd, a detailed analysis on the subject matter of this study may be conducted on the larger sample and data to form broader opinion.

References:

1. Hutomo, A., & Fitridayani, R. (2015). The impact of perceived environmental uncertainty supply chain performance and integrated domestic economy plywood manufacturer in Indonesia. *Third International Conference on Advances in Economics, Management and Social Study - EMS 2015*, 42-44.
2. Šafařík, D., & Hlaváčková, P. (2015). Losses in the amount of produced and sold timber. *Procedia Economics and Finance*, 34, 51-57.
3. Agwata, J. A. (2016). Impact of the implementation of a new technology in achieving business objectives: a case of Rai Plywoods (Kenya) Ltd; implementation of a fleet management system. *African J of Accounting Auditing and Finance*, 5(4), 271.
4. Samani, A., & Khali, D. P. (2016). Performance evaluation of plywood prepared from fire retardant treated veneers. *Journal of the Indian Academy of Wood Science*, 13(2), 108-113.
5. Asare, E., & kwakye Ameyaw, L. (2017), NEW VISION FOR FOREST INNOVATIONS BIOECONOMY IN GHANA: A CASE STUDY OF SAMARTEX TIMBER AND PLYWOOD COMPANY. *Wood Science Faridabad*, 66(1), 9
6. De Oliveira, S. J. C., Bolmin, O., Arrigoni, M., & Jochum, C. (2018). Plywood experimental investigation and modeling approach for static and dynamic structural applications. In *Improved Performance of Materials* (pp. 119-141). Springer International Publishing.
7. Li, Z., Qi, X., Gao, Y., Zhou, Y., Chen, N., Zeng, Q., Fan, M., & Rao, J. (2019). Effect of PVC film pretreatment on performance and lamination of wood-plastic composite plywood. *RSC Advances*, 9(37), 21530-21538.
8. Yalico, J. E., Ortíz, M. B., Larco, J. A., Gallegos, A., & Antonini, C. (2020). Managers' Knowledge of Key Performance Indicators in Small and Medium Enterprises: Wood and Timber SMEs in Peru. In *Supply chain management and logistics in emerging markets*. Emerald Publishing Limited.
9. Raghunath, A., & Aloysius Edward, J. (2021). 40. A Study on Impact of Sound Financial Management Practices on Financial Performance with Reference to Western India Plywood Ltd, Baliapattam. *SCHOOL OF MANAGEMENT*, 185.
10. Setter, C., Zidanes, U. L., de Novais Miranda, E. H., Brito, F. M. S., Mendes, L. M., & Junior, J. B. G. (2021). Influence of wood species and adhesive type on the performance of multilaminated plywood. *Environmental Science and Pollution Research International*, 28(36), 50835-50846.
11. Yogesh Hole et al 2019 J. Phys.: Conf. Ser. 1362 012121