



## INCOME SMOOTHING AND ISLAM: EVIDENCE FROM PAKISTAN SHARI'AH COMPLIANT COMPANIES

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### Abstract

Income smoothing refers to the use of accounting techniques to level out net income fluctuations from one period to the next. Companies indulge in this practice to manipulate the earnings over the period in order to lower the level of uncertainty. The companies with constant earnings attract more investors as they are willing to pay more prices for company's stock. This study examine the presence of artificial income smoothing in 64 *Shari'ah* compliant companies listed in the financial market of Pakistan for the period 2008-2015. The study also takes into consideration the concept of income smoothing from an Islamic perspective. To achieve the study's objectives, Eckel's index model is used. The study found that 34 percent of the companies are non-smoothers and 66 percent of the companies are smoothers in pooled sample. Among high market capitalized 32 companies, 37.5 percent of the companies are non-smoothers and 62.5 percent are smoothing companies. In 32 low market capitalized companies, 31 percent companies are non-smoothing and 69 percent companies are practicing income smoothing.

**Keywords:** income smoothing, *Shari'ah* compliance, Islamic perspective, Pakistan

### 1. Introduction

Organizations have to disclose their earnings for conniving financial position to the investors for making an effective investment decision. Income statement helps to reveal the income and expenses of an organization to show the financial performance for the period. This information is based upon the actual figures of the company, which is carefully measured. Two dimensions are used to estimate the earnings of an organization, one is for academia and the other one is practitioner aspect.<sup>1</sup> Every

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<sup>1</sup>Garen Markarian et al., "Capitalization of R&D Costs and Earnings Management: Evidence from Italian listed Companies," *The International Journal of Accounting* 43, no. 3 (2008): 252.





organization intends to calculate the final income as it contributes to their future growth and market capitalization.

McNichols and Stubben<sup>2</sup> argued that Generally Accepted Accounting Principles (GAAP) authorizes a certain degree of administrative discretion in accounting approaches application. Using this discretion and flexibility to improve the discernment of the firm, “earnings management” techniques are found in the academic and professional literature. Income smoothing is the approach that assists companies to balance the net returns in a smooth way.<sup>3</sup> It is an active handling of earnings towards a predetermined target set by the management. Income smoothing defines as the “estimation of net revenue that an organization earns over a specific period.” It encourages to store or reduce earnings during the performing years in order to defer them for future use during the down turn years of the entity.<sup>4</sup> This results in the elimination of earning fluctuations over the period. Thus, it helps to save the future of the organization along with making them aware of the present position in the financial market.

There are two types of income smoothing streams: natural earning smoothing and on purpose earning smoothed by management.<sup>5</sup> A naturally income smoothing focuses upon the management of cash flows that affect the firm’s performance of in long term. If company’s management takes actions to structure the economic events to produce smooth income streams is said to be real smoothing, whereas artificial smoothing occurs when figures are manipulated by accounting entries timing to produce smooth income streams.

Companies do income smoothing to foresee the future earnings and to maintain the financial position without any risk to the investors. Artificial income smoothing and real income smoothing are two important dimensions in this regard.<sup>6</sup> In real income smoothing, the company uses the strategies to increase the productivity, while in artificial income smoothing, the company uses other accounting techniques such as abnormal accruals, deferring revenue or loan loss provisions to control the income. Shareholders are another significant asset for an organization. Each organization tries to provide maximum dividends to its shareholders to

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<sup>2</sup>Maureen McNichols and Stubben Stephen, “Does Earnings Management Affect Firms, Investment decisions?” *The Accounting Review* 83, no. 6 (2008): 1575.

<sup>3</sup>Gin Chong, “Is Income Smoothing Ethical?” *Journal of Corporate Accounting and Finance* 18, no. 1 (2006): 42

<sup>4</sup>Paul Healy and Wahlen James, “A Review of the Earnings Management Literature and its Implications for Standard Setting,” *Accounting Horizons* 13, no. 4 (1999): 365-383.

<sup>5</sup>Norm Eckel, “The Income Smoothing Hypothesis Revisited,” *Abacus* 17, no. 1 (1981): 34.

<sup>6</sup>Bruce Koch, “Income Smoothing: An Experiment,” *Accounting Review* (1981): 577.



strengthen relations. However, few organizations need to conceal real profit ratio by manipulating accounting figures to create more future income stability.<sup>7</sup>

Various researches focused on income smoothing; hence, it has developed an interesting discussion and arguments.<sup>8</sup> Few scholars consider income smoothing as immoral technique since it manipulates the actual accounting figures,<sup>9</sup> while others takes it ethical with regard to the personal gains of the company.<sup>10</sup> Researchers believed that artificial income smoothing leads to poor corporate governance practices since the organization is suffering earnings, so they manipulate actual figures from the stakeholders. This research study aims to focus on whether *Shari'ah* compliant companies adopt income-smoothing practices in Pakistan. The study also compares lower and higher performance companies with respect to smoothing activities.

### 1.1. Research Questions

This study addresses the following research questions:

1. Is income smoothing practices being observed in *Shari'ah* compliant companies of Pakistan?
2. What are smoothing behaviors among top performing companies and low performing companies based on market capitalization?

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<sup>7</sup>Dale Buckmaster, *Development of the Income Smoothing Literature, 1893-1998: a Focus on the United States* (Vol. 4. Elsevier, 2001)

<sup>8</sup>Amir Barnea et al, "The Implementation of Accounting Objectives: An Application to extraordinary Items," *The Accounting Review* 50, no. 1 (1975): 63; Koch, "Income Smoothing: An Experiment," 577; Drew Fudenberg and Tirole Jean, "A Theory of Income and Dividend Smoothing based on Incumbency Rents," *Journal of Political Economy* 103, no. 1 (1995): 82; Mandira Sankar and Subramanyam K, "Reporting Discretion and Private Information Communication through Earnings," *Journal of Accounting Research* 39, no. 2 (2001): 365-386; Joshua Ronen and Yaari Varda, *Earnings Management* (Springer US, 2008); McNichols and Stephen, "Does Earnings Management affect Firms' Investment Decisions?" 1571-1603; Muhammad Ghulzar and Riaz Yasir, "Do *Shari'ah* Compliant Companies Indulge in Income Smoothing? Evidence from Pakistan," (2013).

<sup>9</sup>Fudenberg and Jean, "A Theory of Income and Dividend Smoothing Based on Incumbency rents," 83; Ben-Hsien Bao and Bao Da-Hsien, "Income Smoothing, Earnings Quality and Firm Valuation," *Journal of Business Finance and Accounting* 31, no. 9-10 (2004): 1539; Healy and James, "A Review of the Earnings Management Literature and its Implications for Standard Setting," 365-383.

<sup>10</sup>Atul Shah, "Exploring the Influences and Constraints on Creative Accounting in the United Kingdom," *European Accounting Review* 7, no. 1 (1998): 92; Sankar and Subramanyam, "Reporting Discretion and Private Information Communication through Earnings," 374; Lei Cai et al., "The Effect of IFRS Adoption Conditional upon the Level of Pre-adoption Divergence," *The International Journal of Accounting* 49, no. 2 (2014): 171.





## 1.2. Objectives of the Study

The objective of present research study is to investigate artificial income smoothing in *Shari'ah* compliant companies of Pakistan and to identify smoothing behavior among top performing and low performing companies based on their market capitalization in Pakistan Stock Exchange (PSX).

## 1.3. Rationale of the Study

Income statement is a wide spectrum that has many significant dimensions mainly related with income control, future earnings prediction and cash flow management. Income smoothing is the diminution of earning fluctuations of a company. Number of studies signifies that income smoothing has proven a good way to motivate the firms. It is comprised of ethical business method but somehow divert to fraudulent reporting to attract investors because they are supposed to pay premiums for stake by observing the sustainability in a company's earnings. Income smoothing outlook depends on three main assumptions. First, it derives a non-monetary private benefit from running the firm by the management. Second, in recent years, income annotations weighed more than prior annotations in order to assess the manager's performance. Third, poor performance leads to interference by the firm which later resulting in a decrease of the manager's private benefit. Therefore, this study comprehends the smoothing behavior of *Shariah* compliant companies in Pakistan.

The research study is composed of five sections. Section I highlights the background and significance for conducting the study. Section II describes the earlier literature work on the income smoothing practices. Section III explains the methodology for conducting the study. Section IV presents findings of the study. Section V concludes the research study.

## 2. Literature Review

### 2.1. Previous Studies

Various researchers defined income smoothing in different ways. Imhoff<sup>11</sup> defines it as; income statement is considered to be the main source of indicating earnings information for any organization and income smoothing is a way to make all the users aware of financial statements.<sup>12</sup> Ashari, Koh, Tan and Wong<sup>13</sup> said that it is an attempt by the management to control the earnings variability by using different

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<sup>11</sup>Eugene Imhoff, "Income Smoothing- a Case for Doubt," *Accounting Journal* 1 (1977): 85-100.

<sup>12</sup>Koch, "Income Smoothing: An Experiment," 577.

<sup>13</sup>Nasuhayah Ashari et al., "Factors Affecting Income Smoothing among Listed Companies in Singapore," *Accounting and Business Research* 24, no. 96 (1994): 295.



accounting measures. Fudenberg and Tirole<sup>14</sup> said that it is an excellent way to control fluctuations in income variables and to boost profit level of the organization. Earning management can be measurable with the help of different models. Well-recognized models are developed to achieve the earnings management such as Eckel Model,<sup>15</sup> Jones Model,<sup>16</sup> Levitt Model,<sup>17</sup> and Mulford and Comiskey Model.<sup>18</sup>

Michelson, Jordan-Wagner and Wootton<sup>19</sup> analyzed various income smoothing detection methods. They tested seven well-liked models to determine the best recognition of income smoothing. They found that there was no visible difference between six of the seven detection methods, only the Dechow, Sloan and Sweeney<sup>20</sup> approach given different results, since it measured 25 out of the 28 firms follow income smoothing. Their research has provided insight into different income smoothing techniques; depicting different methods are not equally preferred to detect all forms of income smoothing. Moses<sup>21</sup> and Grant et al.<sup>22</sup> found almost 50% companies show income smoothing. They took income smoothing as inter sequential smoothing in which costs and expenditures of the organization are first estimated and then income classification is done based on this estimation.

Bao and Bao<sup>23</sup> confirmed that financial markets and investors set high profits on smooth high quality earnings figures. This provides an adequate incentive for companies to get involved in income smoothing, especially where business rewards are based on market performance.<sup>24</sup> Most studies took evidence for income smoothing by modeling the effect of managerial discretion on earnings.<sup>25</sup> Schipper<sup>26</sup> questioned the standard earnings level on which minimal deviation is preferred. In order words,

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<sup>14</sup>Fudenberg and Jean, "A Theory of Income and dividend Smoothing based on Incumbency rents," 83.

<sup>15</sup>Eckel, "The Income Smoothing Hypothesis Revisited," 34.

<sup>16</sup>Micheal Jones, *Creative Accounting, Fraud and International Accounting scandals* (John Wiley and Sons, 2011).

<sup>17</sup>Arthur Levitt, "The Numbers Game," *The CPA Journal* 68, no. 12 (1998): 14.

<sup>18</sup>Charles Mulford and Comiskey Eugene, *The Financial Numbers Game: Detecting Creative accounting Practices* (John Wiley and Sons, 2011).

<sup>19</sup>Stuart Michelson et al., "Income Smoothing and Risk-Adjusted Performance," (1999).

<sup>20</sup>Patricia Dechow et al., "Detecting Earnings Management," *Accounting Review* (1995): 207.

<sup>21</sup>Douglas Moses, "Income Smoothing and Incentives: Empirical Tests Using Accounting Changes," *Accounting Review* (1987): 363.

<sup>22</sup>Julia Grant, "CEO Risk-related Incentives and Income Smoothing," *Contemporary Accounting Research* 26, no. 4 (2009): 1040.

<sup>23</sup>Bao and Da-Hsien, "Income Smoothing, Earnings Quality and Firm Valuation," 1538.

<sup>24</sup>Flora Guidry et al., "Earnings-based Bonus Plans and Earnings Management by Business-unit Managers," *Journal of Accounting and Economics* 26, no. 1 (1999): 113-142.

<sup>25</sup>Healy and Wahlen, "A Review of the Earnings Management Literature and its Implications for Standard Setting," 368.

<sup>26</sup>Katherine Schipper, "Commentary on Earnings Management," *Accounting Horizons* 3, no. 4 (1989): 92.





he figured out how do accounting numbers behave in the absence of income smoothing.

Koh<sup>27</sup> studied the connection between institutional ownership and income smoothing. The results prolonged the anticipative positive relationship between institutional ownership and the probability of firms smoothing earnings in Australia. The study highlighted the hurdles in accordance with institutional ownership and earnings management, and how future research could be beneficial by explicitly examining the trade-offs between earnings management and the reasons that affect the strength of these incentive trade-offs.

Tucker and Zarowin<sup>28</sup> implemented a new approach to examine whether income smoothing misleads earnings information or enhances future earnings via current earnings and cash flows. Using the method of Collins, Kothari, Shanken and Sloan,<sup>29</sup> they found that the change in the present stock price of higher smoothing companies exhibits more information about their future profit than the changes in the stock price of lower-smoothing companies.

Etemadi and Sepasi<sup>30</sup> studied the difference between income smoothing practices and firms market value in Iran. They analyzed the effect of the firm's size on the inclination to smooth income by testing 200 companies listed on the Tehran Stock Exchange during the period 1999 to 2005. Eckel "coefficient variation method" used to find income smoothing patterns. The result shows that income-smoothing pattern was present; anyhow, its percentage was low. The univariate test resulted in more smooth income for smaller firms rather than larger firms. Ordinary least square (OLS) technique was also implied on a modified income statement model. It was found that the market value of firms refers more to the earnings size rather than earnings stream.

Huang, Zhang, Dies and Moffett<sup>31</sup> worked on the comparison of real and artificial income smoothing. He observed that real smoothing uses financial derivate that tends to improve the real value of the company. While the accruals used under artificial smoothing do not directly relate to the value of the company. He explained

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<sup>27</sup>Ping-Sheng Koh, "Institutional Ownership and Income Smoothing: Australian Evidence," *Accounting Research Journal* 18, no. 2 (2005): 99.

<sup>28</sup>Jennifer Tucker and Zarowin Paul, "Does Income Smoothing Improve Earnings Informativeness?" *The Accounting Review* 81, no. 1 (2006): 261.

<sup>29</sup>Daniel Collins et al., "Lack of Timeliness and Noise as Explanations for the Low Contemporaneous Return-earnings Association," *Journal of Accounting and Economics* 18, no. 3 (1994): 301.

<sup>30</sup>Hossein Etemadi and Sepasi Sahar, "A Relationship between Income Smoothing Practices and Firms Value in Iran," *Iranian Economic Review* 13, no. 20 (2007): 32.

<sup>31</sup>Pinghsun Huang et al., "Do Artificial Income Smoothing and Real Income Smoothing Contribute to Firm Value Equivalently?" *Journal of Banking and Finance* 33, no. 2 (2009): 227.



that real smoothing improves the value of the firm by using financial derivatives while accruals were used in artificial smoothing and these are negatively related to the value of the firm.

Luqman and Shahzad<sup>32</sup> undertook an empirical investigation to examine the smoothing behavior of 168 *Shari'ah* compliant companies listed on Karachi Stock Exchange (KSE) among profitability ratio [ROA: return on Asset and ROE: Return on Equity) and tax income variables. They distinguished income smoother and non-income smoother companies with the application of Eckel<sup>33</sup> index model for the period 2001 to 2007. The results of this study, promoted the fact that a significant relationship exists between income smoothing, tax income and profitability ratio.

Saringat, Haron and Tahir<sup>34</sup> studied the existence of income smoothing in Malaysian's *Shari'ah* compliant companies. They analyzed among 712 *Shari'ah* compliant companies for the period 2007-2011. The study applied the test of artificial smoother and found that 53.6% companies are artificial smoothers that is achieved through accounting practices.

Kustono and Sari<sup>35</sup> carried out a research on different dimensions of smoothing behavior. He finds out the relation between accounting income statement and hedging. Another important aspect of these researchers was that all of these emphasized upon the performance of *Shari'ah* compliant companies in Pakistan. The study found that the performance of an organization is negatively associated with cash flows.

Ghulzar and Riaz<sup>36</sup> observed the existence of income smoothing in the Pakistan *Shari'ah* compliant companies through Islamic perspective. Real smoothing suggests making production and supposed decisions for minimizing income variability purposes. On the other hand, artificial smoothing is attained through accounting practices. A sample of 30 *Shari'ah* compliant companies in Pakistan capital market for the period 2008 to 2012 was studied using artificial income smoothing technique. They found 27% of the companies as artificial income smoothers.

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<sup>32</sup>R. Luqman and F. Shahzad, "An Association between Income Smoothing, Income Tax and Profitability Ratios in Karachi Stock Exchange (An Empirical Investigation)," *Interdisciplinary Journal of Contemporary Research in Business* 3 (2012): 987.

<sup>33</sup>Eckel, "The Income smoothing Hypothesis Revisited," 32.

<sup>34</sup>Siti Saringat et al., "Income Smoothing and Islam: an Evidence from Malaysian *Shari'ah* Compliant Companies," *International Journal of Social Science and Humanity* 3, no. 2 (2013): 160.

<sup>35</sup>Alwan Kustono and Dwi Kusuma Evelin, Alwan Kustono and Dwi Kusuma Evelin, "The Effect of Profitability and Financial Leverage against Earning Income Practices in Banks in Indonesia," *Media Research Accounting* 2, no. 2 (2013)

<sup>36</sup>Ghulzar and Riaz, "Do *Shari'ah* Compliant Companies Indulge in Income Smoothing? Evidence from Pakistan," (2013).





Khalid, Yasser and Ajmal<sup>37</sup> determined whether investors handle earnings via judging accruals, or do they price accumulations when viewing the stock price. Their study found that the market rates are discretionary accruals. They found that the companies with a larger number of institutional ownership, high quality audit production and a large number of the independent board have high effect on discretionary accruals and on their stock yields as compared to other firms.

Acharya and Lambrecht<sup>38</sup> studied the significance of income smoothing and found that artificial income smoothing can enhance firm's capital, investments, market value and economic development. Kerekes and Cvetanovska<sup>39</sup> empirically analyzed whether income smoothing has increased or decreased a firm's value after the passage of the Sarbanes-Oxley Act (SOX) passed by United States (U.S.) congress in 2002 to protect investors from the possibility of fraudulent accounting activities by corporations. The study found the positive significant impact on firms' value through legislation changes made on the concept of income smoothing. In addition, they made suggestions based on their research findings as how managers should adopt income smoothing.

Gaganis, Hasan and Pasiouras<sup>40</sup> studied the role of technical backlogs in the income smoothing behavior of insurance companies. This research was among one of the first theoretical endeavors to measure the relationship in the insurance industry. A sample of 770 insurance firms listed in 87 countries stock markets within the period 2000 to 2009. They found that institutional properties such as rule of law, ordinary law's legal origin, economic exemption, and regulations relating to technical planning and supervisory capacity prescribe income smoothing but other characteristics like capital demands, tax deductibility and auditing do not have a high impact.

## 2.2. Income Smoothing in Islamic Perspective

Muslims seek guidance for their ethical system from the teachings of the Holy Book (Qur'ān) and from the *Sunnah (Hadiths)* of the Prophet (SAW). The objectives of Islam are that Muslims should construct their lives on the Islamic notions of human well-being, fairness in socio-economic spheres and call for a balanced indulgence of

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<sup>37</sup>Zunera Khalid et al., "The Pricing of Discretionary Accruals—Evidence from Pakistan," (2015).

<sup>38</sup>Viral Acharya and Lambrecht Bart, "A Theory of Income Smoothing when Insiders know More than Outsiders," *Review of Financial Studies* (2015): hhv026.

<sup>39</sup>Bence Kerekes and Cvetanovska Bojana, "The Impact of Income Smoothing on Firm Value after the Sarbanes-Oxley Act," (2015).

<sup>40</sup>Chrysovalantis Gaganis et al., "Regulations, Institutions and Income Smoothing by Managing technical Reserves: International Evidence from the Insurance Industry," *Omega* 59 (2016): 119.



material and spiritual needs of all humans.<sup>41</sup> Cai et al.<sup>42</sup> also emphasized that *Shari'ah* compliant firms should stand for high standards of ethics and good corporate governance, thus a prerequisite for income management should be zero. Therefore, the executive management should avoid gradual erosion in the quality of financial reporting.

At times, it becomes difficult for the stakeholders to differentiate between what constitute a good practice and what a gray area is particularly, where the line between legitimacy and absolute fraud is somewhat indistinguishable. A gray area is where the GAAP are perverted, the management cuts corners, and earnings reports reflect the desires of the management rather than the underlying financial performance of the firm.<sup>43</sup> Cai et al.<sup>44</sup> also added that *Shari'ah* compliant firms are expected to be free from earnings manipulation, immoral transactions and insider trading which may negatively affect investor's decisions.

Conversely, in Islamic financial theory, smoothing of the profit to Investment Account Holders (IAH) is a well-acknowledged exercise. The Financial Accounting Standard (FAS) 11 of Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) explains that the recognition of the profit equalization and the investment risk reserve to alleviate the returns for Islamic institutions and moderate withdrawal risk. Income smoothing is not necessarily a negative phenomenon, but it is a necessary and logical result of the flexibility in financial reporting options. If management has the responsibility to maximize the shareholders' value, then they must choose from all the legal and ethical options to help in achieving this goal. There is a good income smoothing and bad income smoothing.<sup>45</sup> Nevertheless, empirical studies associated to return smoothing practices are inadequate and report mixed results.

### 3. Research Methodology

Selection of the most appropriate research method is very vital and significant for conducting a research study.<sup>46</sup> There are 90 *Shari'ah* compliant companies listed on Pakistan Stock Exchange (PSX). A sample of 64 *Shari'ah* compliant companies is selected to examine the income smoothing practices due to the availability from 2008

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<sup>41</sup>Umer Chapra, *The Future of Economics: An Islamic Perspective* (Kube Publishing Ltd, 2016).

<sup>42</sup>Lei Cai et al., "The Effect of IFRS Adoption Conditional upon the Level of Pre-adoption Divergence," 148.

<sup>43</sup>Chong, "Is Income Smoothing Ethical?" 43.

<sup>44</sup>Lei Cai et al., "The effect of IFRS Adoption Conditional upon the Level of Pre-adoption Divergence," 148.

<sup>45</sup>William Parfet, "Accounting Subjectivity and Earnings Management: A Preparer Perspective," *Accounting Horizons* 14, no. 4 (2000): 484.

<sup>46</sup>David Coldwell, *Business Research* (Juta Academic, 2004).





to 2015. The *Shari'ah* screening criterion is available in Annexure-A. *Shari'ah* compliant companies are further divided into high performance and low performance companies based on the market capitalization. High performance companies are those companies, which have high market capitalization, and low performance companies are those with low market capitalization in the Pakistan Stock Exchange. Market capitalization is calculated by multiplying the current stock price of the listed *Shari'ah* compliant firms to the total number of outstanding shares. Higher the stock price, higher would be the performance of company and vice versa<sup>47</sup>.

The secondary data is used for addressing the research problems fulfilling the objectives of the study. The information for all variables is collected with the help of annual published financial reports of the *Shari'ah* compliant companies. Two variables, that is, net income and net sales are used for selected *Shari'ah* compliant companies to collect data for the purpose of this research study. Microsoft Excel (MS Excel) software is used for analyzing the data. The list of *Shari'ah* compliant firms is enclosed in Annexure - B. Eckel<sup>48</sup> index model is used to satisfy our research objectives. According to this model, the coefficient of variation of annual change in income is divided by the coefficient of variation of annual change in sales indicates the smoothing behavior. The formula for Eckel model is given below.

$$| CV_{\Delta I_i} / CV_{\Delta S_i} | < 1$$

If  $CV_{\Delta I_i} > CV_{\Delta S_i}$ , and  $d_f > 1$ , then the company is an artificial smother.

Where,

$CV_{\Delta I_i}$  = Coefficient variation for change in sales time series for company  $i$

$CV_{\Delta S_i}$  = Coefficient variation for change in profit time series for company  $i$

$d_f = CV_{\Delta I_i} / CV_{\Delta S_i}$

#### 4. Results and Discussion

Table 1 shows the descriptive statistics of the data. Descriptive statistics present mean, median, maximum and minimum values for the changes in net sales and profit after tax variables. The mean value of change in net sales was -1772366.48 and the average value for change in net profit was 144677.02. Change in net sales has a median value of 530846 whereas a change in net profit has a median of 29557.

<sup>47</sup>Hassan Raza, "The Impact of Financial Performance of the Company on its Share Price; Evidence from Pakistan Stock Exchange," (2010).

<sup>48</sup>Eckel, "The Income Smoothing Hypothesis Revisited," 33.



Table 1. Descriptive Statistics

	Change in Net Profit	Change in Net Sales
Mean	-1772366.48	144677.02
Median	530846.00	29557.00
Minimum	-1024423605.00	-40923538.00
Maximum	203893241.00	33378305.00

Table 2 depicts the correlation between the change in net sales and change in net profit after tax. The value of 0.21 shows a weak correlation between the both variables.

Table 2. Correlation Matrix

	Change in Sales	Change in Profit
Change in Sales	1.00	
Change in Profit	0.21	1.00

As the sample of 64 selected *Shari'ah* compliant companies were categorized with respect to market capitalization. Out of the 64 selected firms, top 32 firms were ranked as high cap and the last 32 were ranked as low cap category with respect to high market capitalization among them. Eckel index model was applied to observe the income-smoothing pattern among the *Shari'ah* compliant companies for the period 2008 to 2015. Table 3 indicates that 42 *Shari'ah* compliant companies (66 percent) have smoothing behavior compared to 22 companies (34 percent) that have non-smoothing behavior practices. However, when the pooled sample was divided in high and low capitalized companies than the findings were slightly different.

Table 3. Statistics on Income Smoothing

	Firms	Smoothers	Percentage	Non-Smothers	Percentage
Pooled Sample	64	42	66.0%	22	34.0%
High Cap	32	20	62.5%	12	37.5%
Low Cap	32	22	69.0%	10	31.0%

Results are based on data from 2008 to 2015

Out of 32 high capitalization firms, 20 firms were committed towards earning management with 62.5 percent share in the sample and remaining 12 firms with 37.5 percent share were not committed earning management. On the other side, 22 low capitalized firms with 69 percent were practicing earning management and 10 low capitalized firms with 31 percent share were not showing smoothing behavior. The graphical representation of the findings is shown in the following figure.



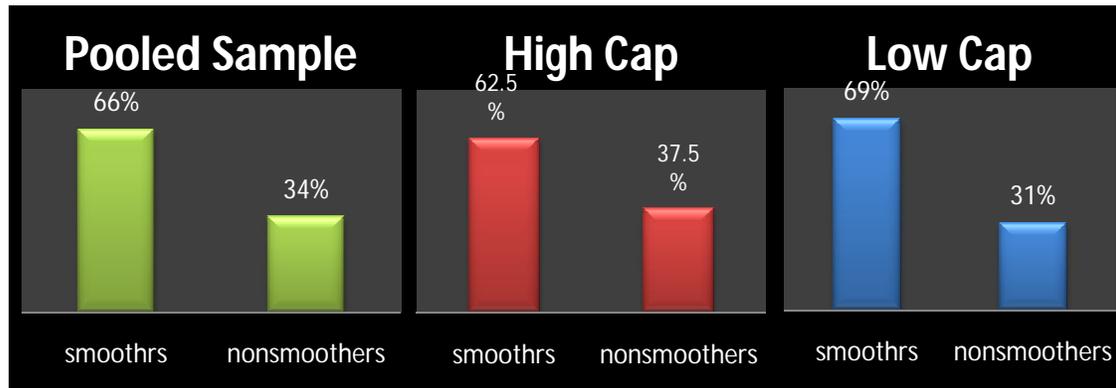


Figure1. Pooled, High Cap and Low Cap Smoothing Behavior

## 5. Conclusion and Recommendations

The present study identifies income smoothing in *Shari'ah* compliant companies of Pakistan. The study analyzed income-smoothing behavior of high performance and low performance companies with "Eckels (1981) Index" earning detection model. 64 *Shari'ah* compliant companies were tested and concluded that 34 percent of the companies were non-smoothers and remaining 66 percent of the companies were income smoothers for the period 2008 to 2015. Out of top 32 high-capitalized firms, 37.5 percent of the companies were non-smoothers and 62.5 percent were smoothing companies. Nevertheless, 31 percent low market capitalized companies were non-smoothing and remaining 69 percent low capitalized companies were practicing income smoothing.

Income smoothing is not wrong. It is exploitation of earnings toward already determined goals set by the management. Nowadays, it is very commonly used. According to a few *Shari'ah* scholars, income smoothing is not ethical because of high manipulation of earnings. The client should know the actual income and accounts of companies before investing. If companies are not showing the actual annual accounts to their investors, then it is unethical. *Shari'ah* Companies should also not follow artificial income smoothing practices because of *halal* factor, since investors investing in *Shari'ah* listed companies have believe of "fair dealings." Therefore, the *Shari'ah* advisory board of such companies should discourage the income smoothing practices.

Economic circumstances may be the key factor of the executives to inflate sales against costs consistent with our aim to find income smoothing in *Shari'ah* compliant companies in Pakistan capital market, we however, are unable to associate to what extend income smoothing, particularly artificially, is allowed by the AAOIFI.



Thus, based on the same or large samples across different countries, we recommend future researchers to investigate it further.

### Appendix – A: *Shari'ah* Screening Criteria

Since the entry into the *Shariah* compliant counters is by means of following strict guidelines of business ethics, therefore, *Shari'ah* compliant companies are expected to maintain higher standards of good business conduct in running of their business.<sup>49</sup> *Shari'ah* compliance of stocks is done under the guidance of qualified and reputed *Shariah* experts. For stocks to be “*Shari'ah* compliant,” it must meet ALL the six key tests given below.

**Business of the Investee Company:** Core business of the company must be halal and in line with the dictates of *Shariah*. Hence, investment in securities of any company dealing in conventional banking, conventional insurance, alcoholic drinks, tobacco, pork production, arms manufacturing, pornography or related activities is not permissible.

**Debt to Total Assets:** Debt to Asset ratio should be less than 37%. Debt, in this case, is classified as any interest bearing debts. Zero coupon bonds and preference shares are, both, by definition, part of debt.

**Non-Compliant Investments to Total Assets:** The ratio of non-compliant investments to total assets should be less than 33%. Investment in any non-compliant security shall be included for the calculation of this ratio.

**Non-Compliant Income to Total Revenue. Purification of Non-Compliant Income:** The ratio of non compliant income to total revenue should be less than 5%. Total revenue includes Gross revenue plus any other income earned by the company. This amount is cleansed out as charity as a pro rata ratio of dividends issued by the company.

**Illiquid Assets to Total Assets:** The ratio of illiquid assets to total assets should be at least 25%. Illiquid asset, here, is defined as any asset that that *Shariah* permits to be traded at value other than the par.

**Net Liquid Assets to Share Price:** The market price per share should be greater than the net liquid assets per share calculated as: (Total Assets – Illiquid Assets – Total Liabilities) divided by number of shares.

**Source:** <https://www.almeezangroup.com/investor-education/Shariah-methodology/>

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<sup>49</sup>R Abdul-Rahman, A. Rahman, and S. Courtenay, “Religion and Earnings Management: Some Evidence from Malaysia,” In *Auckland Area Accounting Conference*, (Auckland, New Zealand, 2008)



## Appendix – B: List of *Shari'ah* Compliant Companies Listed on Pakistan Stock Exchange

1. Abbot Laboratories (ABOT)
2. AgriAuto Industries Ltd (AGIL)
3. Atlas Battery (ATBA)
4. Atlas Honda Cycle (ATLH)
5. Attock Cement (ACPL)
6. Attock Refinery Ltd (ATRL)
7. B.R.R Guardian Mudarba (BRR)
8. Bank Islami Pakistan Ltd (BIPL)
9. Banu Woolen Mills Ltd (BNWM)
10. Bata (PAK)
11. Bawany Air Product Ltd (BAPL)
12. Burshanelpg (Pakistan) Ltd (BPL)
13. Cherat Cement (CHCC)
14. Cherat Packing Ltd (CPPL)
15. Clariant Pakistan Ltd (CPL)
16. Crescent Standard Mudarba (CSM)
17. DG Cement (DGKC)
18. Dewan Farroq Spinning Mills Ltd (DFSM)
19. Dynea Pakistan (DYNO)
20. Elite Cap. Mod (FECM)
21. Engro Food Ltd (EFOODS)
22. Exide Pak. Ltd (EXIDE)
23. First National Bank Mudaraba (FNBM)
24. Fauji Bin Qasim (FFBL)
25. Fauji Fertilizer Ltd (FFC),
26. Fecto Cement Ltd (FECTC)
27. Ferozsons Lab. (FEROZ)
28. First Habib Bank Mudaraba (FHBM)
29. Habib Mudaraba (FHAM)
30. Flying Cement (FLYING)
31. Ghandara Industries Ltd (GHNI)
32. Ghandara Nissan Ltd (GHNL)
33. Ghani Gases (GGL)
34. Ghani Glass (GHGL)
35. Glaxosmithkline (GLAXO)
36. Grays of Cambridge (GRAYS)
37. Honda Atlas Car (HCAL)
38. Habib ADM Ltd (HAL)
39. Hadari Construction (HADC)
40. Hino Pak (HIN)
41. Hub Power Co (HUBC)
42. Huffaz Pipes (HSPI)
43. ICI Pakistan (ICI)
44. IBL Health Care Ltd (IBLHL)
45. Indus Motor (INDU)
46. KSB Pumps (KSBP)
47. Karachi Electric Supply Corp. (KESE)
48. Kohat Cement (KOHK)
49. Kohinnoor Energy (KOHK)
50. Lafarge Pakistan Cement (LPCL)
51. Linde Pakistan Ltd (LINDE)
52. Lotte Pakitan PTA Ltd (LOTPTA)
53. Lucky Cement (LUCK)
54. Mapple Leaf Cement (MLCF)
55. Mari Petroleum (MARI)
56. Meezan Bank Ltd (MEBL)
57. Mehran Sugar (MRNS)
58. Millat Tractor Ltd (MTL)
59. National Refinery Ltd (NRL)
60. National Foods (NATF)
61. Netsole Technologies Ltd (NATSOL)
62. Nimir Ind. Chemical Ltd (NICL)
63. Nishat Mills (NML)
64. Oil and Gas Development Co. (OGDC)
65. Pakistan State Oil (PSO)
66. P.N.S.C (PNSC)
67. P.T.C.L.A (PTC)
68. Package (PKGS)
69. Pak Int. Cont. Ltd (PICT)
70. Pak Oil Field (POL)
71. Pak Refinery (PRL)
72. Pak Suzuki (PSMC)
73. Pakistan Petroleum (PPL)
74. Pioneer Cement (PIOC)
75. Prudential Mudarabaist (PMI)
76. Punjab Mudaraba (FPJM)
77. Quice Foods (QUICE)
78. Sally Textile Mills (SLYT)
79. Sazgaar Engineering Works Ltd (SAZEW)
80. Searl Company (SEARL)
81. Service Industry Ltd (SRVI)
82. Shell Pakistan Ltd (SHEL)
83. Sitara Chemical Industries (SIDC)
84. Sitara Peroxide Ltd (SPL)
85. Standard Chart Mod (SCM)
86. Sui Northern (SNGP)
87. Tariq Glass (TGL)
88. Telecard (TELE)
89. Thal Ltd (THALL)
90. Wahnobel Chemicals Ltd (WAHL)



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