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Relevance of Earnings Metrics: A Comparative Analysis of EPS and CFO on the Pakistan Stock Exchange

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Abstract
This paper sets out to examine the information content of earnings per share (EPS) and cash flow from operations (CFO) in companies listed on the Karachi Stock Exchange. The primary aim is to determine whether EPS or CFO provides more relevant and incremental information for investors in predicting stock returns. To achieve this objective, the study analyzes data from 85 companies listed on the Pakistan Stock Exchange over the period spanning from 2008 to 2021. The research evaluates the relative performance of EPS and CFO models in explaining stock returns and assesses which of the two financial metrics carries greater information content. The findings of the study reveal that the EPS model outperforms the CFO model in terms of explaining stock returns. Additionally, the results indicate that EPS possesses greater information content compared to CFO. These findings align with previous research conducted in various countries, suggesting the robustness of the observed relationship between financial metrics and stock returns. This study contributes valuable insights into the relative significance of EPS and CFO as indicators of company performance and their impact on stock returns in the context of the Karachi Stock Exchange. The results underscore the importance of earnings metrics in influencing investor decision-making and highlight the superiority of EPS over CFO in providing relevant and incremental information for market participants.

Keywords: Earnings Per Share, Cash Flow From Operations, Stock Returns, Information Content
JEL Codes: G12, M41, M48

1. INTRODUCTION

The interconnectedness of the world economy and culture is a defining characteristic of the contemporary era. As highlighted by Lippit et al., (2008), globalization has facilitated unprecedented levels of economic integration and cultural exchange among nations. This phenomenon is driven by advancements in technology, communication, and transportation, which have effectively reduced barriers to trade, investment, and information dissemination. In this interconnected global landscape, the flow of goods, services, capital, and ideas transcends national borders, shaping the economic, social, and cultural dynamics of countries around the world. International trade agreements, multinational corporations, and digital platforms have catalyzed the exchange of products, knowledge, and cultural expressions on a scale never seen before. Moreover, the interconnectedness of economies and cultures has profound implications for various sectors, including business, politics, education, and the arts (Flew, 2011). Businesses now operate in global markets, sourcing inputs from multiple countries, and selling their products and services to diverse consumer bases. Political decisions in one part of the world can have ripple effects across continents, illustrating the interconnected nature of governance and policy-making. Furthermore, education and the arts have become increasingly globalized, with students and artists seeking opportunities and inspiration beyond their national borders. Cross-cultural collaborations in academia and the creative industries have enriched intellectual discourse and artistic expression, fostering innovation and diversity (Gerlitz and Prause, 2021).

However, while globalization presents numerous opportunities for economic growth, cultural exchange, and technological advancement, it also poses challenges such as income inequality, cultural homogenization, and environmental degradation. Therefore, understanding and managing the complexities of interconnectedness are essential for navigating the opportunities and challenges of the globalized world effectively. In essence, as highlighted by Lippit et al., (2008), the interconnectedness of the world economy and culture is a multifaceted phenomenon that continues to shape the trajectory of human society in the 21st century. Acknowledging and embracing this interconnectedness while addressing its associated challenges are crucial for fostering sustainable development and prosperity on a global scale. The process of evaluating businesses has been undergoing rapid transformation, outpacing even the swift changes observed in the global economy. As noted by Hitchner (2006), this acceleration in the evolution of business evaluation methodologies reflects the dynamic nature of

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markets, technologies, and organizational structures in today's business landscape. One of the key drivers behind this accelerated pace of change in business evaluation is the increasing complexity of business operations and transactions. With globalization, businesses are expanding their operations across borders, engaging in complex mergers, acquisitions, and strategic alliances. As a result, traditional valuation models and techniques may no longer suffice to capture the intricacies of modern business arrangements.

Moreover, advancements in technology have revolutionized the way businesses operate and generate value (Chesbrough, 2003). The rise of digital platforms, data analytics, and artificial intelligence has transformed industries and business models, introducing new sources of value and risk that must be accounted for in the evaluation process. For instance, intangible assets such as intellectual property, brand equity, and customer data play a critical role in determining the value of modern businesses but can be challenging to quantify using traditional valuation methods. Furthermore, changes in accounting standards, regulatory requirements, and market dynamics have also influenced the evolution of business evaluation practices. Stakeholders, including investors, regulators, and creditors, demand greater transparency and accuracy in financial reporting and valuation, prompting evaluators to adopt more rigorous standards and methodologies. Additionally, the growing emphasis on environmental, social, and governance (ESG) factors has introduced new dimensions to business evaluation. Investors are increasingly considering sustainability criteria and ethical practices when assessing the long-term viability and value of businesses, necessitating the integration of ESG considerations into the evaluation process.

The demand for business valuation services has witnessed a significant uptick, driven by various factors such as mergers and acquisitions, corporate restructuring, financial reporting requirements, and litigation support. As noted by Hitchner (2006), this heightened demand reflects the growing complexity and diversity of business transactions and ownership structures in today's dynamic marketplace. One of the primary drivers behind the increased demand for business valuation services is the surge in merger and acquisition activities. In an era characterized by globalization and market consolidation, companies are constantly seeking opportunities to expand their market presence, enhance their competitive advantage, and unlock synergies through strategic acquisitions and partnerships. Business valuations play a crucial role in facilitating these transactions by providing insights into the fair value of target companies, assessing potential synergies, and guiding negotiation and decision-making processes (De Graaf and Pienaar, 2013).

Additionally, the need for business valuations arises in the context of corporate restructuring and reorganizations. Whether it involves spin-offs, divestitures, or restructurings to optimize capital allocation and streamline operations, accurate and reliable valuations are essential for determining the fair value of assets and liabilities, allocating purchase price considerations, and complying with accounting and regulatory requirements. Furthermore, business valuations play a vital role in financial reporting and compliance. Companies are required to assess the fair value of certain assets and liabilities for financial reporting purposes, such as goodwill impairment testing, purchase price allocations, and stock-based compensation (Mard et al., 2007). Valuation professionals provide independent and objective assessments to ensure compliance with accounting standards and regulatory guidelines, thereby enhancing transparency and credibility in financial reporting. Moreover, business valuations are increasingly sought after in the context of litigation and dispute resolution. Whether it involves shareholder disputes, matrimonial proceedings, or intellectual property disputes, accurate valuations are critical for resolving conflicts and determining equitable outcomes. Valuation experts apply rigorous methodologies and analytical techniques to assess the value of businesses and assets, providing expert testimony and support in legal proceedings.

Business valuation plays a crucial role from an investment perspective, serving as a fundamental tool for financial market participants to assess the worth of businesses and assets. As noted by Soshnick (2008), valuation provides investors with essential insights into the pricing of securities, investment opportunities, and future prospects, thereby guiding their investment decisions and strategies. One key application of business valuation in investment analysis is the determination of the fair market value of a company or its underlying assets. Investors rely on valuation techniques and methodologies to assess the intrinsic value of businesses, taking into account factors such as financial performance, growth prospects, industry dynamics, and macroeconomic conditions. By accurately valuing businesses, investors can make informed decisions regarding the purchase or sale of equity stakes, debt instruments, or other financial assets. Business valuation serves as a critical tool for conducting due diligence and risk assessment in investment transactions. Whether it involves venture capital investments, private equity deals, or corporate acquisitions, investors leverage valuation analyses to evaluate the potential risks and returns associated with investment opportunities. Valuation professionals conduct comprehensive assessments of businesses, scrutinizing their financial statements, operations, competitive positioning, and growth prospects to identify investment risks and opportunities (Chan and Welford, 2005). Business valuation facilitates investment decision-making by providing insights into the relative attractiveness of investment opportunities. Investors compare the valuations of different companies within the same industry or sector to identify undervalued or overvalued assets, relative to their peers. Valuation metrics such as price-to-earnings ratios, price-to-book ratios, and discounted cash flow models help investors assess the attractiveness of investment opportunities and allocate capital accordingly.

Business valuation serves as a cornerstone of investment strategy formulation and portfolio management. Investors utilize valuation analyses to construct diversified portfolios, optimize asset allocation, and manage investment risk. By incorporating valuation considerations into their investment strategies, investors can enhance portfolio performance, mitigate downside risks, and achieve their investment objectives over the long term. Accounting serves a fundamental

purpose in providing essential financial information to various stakeholders, facilitating informed decision-making processes. As noted by Hadi (2006), financial statements are key sources of information for investors and other users, aiding them in assessing the financial health, performance, and prospects of business entities. Accounting research plays a critical role in evaluating the effectiveness and relevance of accounting information in meeting the needs of investors and other users. The primary purpose of accounting research is to enhance our understanding of accounting practices, principles, and standards, as well as their implications for financial reporting and decision-making. Researchers in the field of accounting investigate a wide range of topics, including financial statement analysis, auditing, managerial accounting, corporate governance, and regulatory compliance. By conducting empirical studies, theoretical analyses, and experimental research, accounting scholars seek to uncover insights into the quality, reliability, and relevance of accounting information for users (Libby et al., 2002).

One key focus of accounting research is the evaluation of the usefulness and reliability of financial reporting standards and practices. Researchers assess the impact of accounting standards, such as Generally Accepted Accounting Principles (GAAP) or International Financial Reporting Standards (IFRS), on the quality and comparability of financial statements. They examine the effects of accounting policies, measurement techniques, and disclosure practices on investors' decision-making processes and market outcomes (Milne and chan, 1999). Accounting research investigates the role of auditing in enhancing the credibility and reliability of financial information. Researchers examine the effectiveness of audit procedures, the independence and objectivity of auditors, and the regulatory framework governing audit practices. By evaluating the quality of audits and the assurance provided to stakeholders, accounting research contributes to improving the transparency and integrity of financial reporting processes. Additionally, accounting research explores the impact of managerial accounting practices on internal decision-making processes within organizations (Butterfield, 2016). Scholars investigate management accounting techniques, such as cost allocation, budgeting, performance measurement, and strategic planning, and their influence on managerial decision-making, organizational performance, and value creation. By examining the alignment between managerial accounting practices and organizational objectives, accounting research informs best practices in management control and performance management.

Accounting research addresses emerging issues and challenges in corporate governance, sustainability reporting, and ethical accounting practices (Kolk, 2008). Researchers analyze the effectiveness of corporate governance mechanisms, the integration of environmental, social, and governance (ESG) factors into financial reporting, and the ethical considerations in accounting decision-making. By exploring these issues, accounting research contributes to fostering transparency, accountability, and sustainability in business operations. Accounting earnings and operating cash flows are two crucial sources of information for assessing the financial performance and future prospects of a business entity (Casey and Bartcza, 1985). Accounting earnings, typically represented by net income or profit, provide insights into the profitability of the business over a specific period. They reflect the difference between revenues earned and expenses incurred during the accounting period, as reported in the income statement. Operating cash flows, on the other hand, represent the cash generated or consumed by the core operating activities of the business, such as sales of goods or services, payment of operating expenses, and receipt of cash from customers. Operating cash flows are derived from the cash flow statement, which provides a detailed breakdown of cash inflows and outflows from various operating, investing, and financing activities (Klammer, 2018). Both accounting earnings and operating cash flows play crucial roles in financial analysis and decision-making. Profitability Evaluation: Accounting earnings provide a measure of the business's profitability, indicating its ability to generate profits from its operations. Investors, creditors, and other stakeholders often use earnings metrics, such as earnings per share (EPS) or return on equity (ROE), to assess the profitability and return potential of a company.

2. LITERATURE REVIEW

The ultimate goal of accounting is to provide useful information for users to make economic decisions. The usefulness of information is one of the most important indicators of accounting systems' effectiveness and efficiency (Tehrani and Faniasl, 2007). It indicates that accounting information should meet the diverse needs of different user groups, considering their specific requirements and access limitations. Various stakeholders, including investors, creditors, managers, regulators, and analysts, rely on accounting information to assess the financial performance, solvency, and overall health of an organization. Accounting information encompasses a wide range of financial data, including balance sheets, income statements, cash flow statements, and accompanying disclosures. These financial reports provide insights into the financial position, operating results, and cash flow dynamics of a business entity. Additionally, accounting principles and standards ensure the consistency, comparability, and reliability of financial information, enhancing its usefulness for decision-making purposes. Lee and Aronson (1974) initiated a significant debate regarding the efficacy of earnings in firm valuation. He argued that earnings are often unreliable indicators due to the influence of flexible accounting techniques, suggesting that they may not accurately reflect a company's true financial health. This perspective prompted further examination of alternative metrics for assessing firm value. Building upon Lee's argument, subsequent research, such as that by proposed that cash flow should be considered as an additional explanatory variable alongside earnings. This perspective underscores the importance of incorporating cash flow analysis into the valuation process, recognizing its potential to provide a more comprehensive understanding of a company's financial performance and prospects. By expanding the scope of valuation

metrics beyond earnings alone, researchers and practitioners can gain deeper insights into the financial dynamics of businesses. This broader approach enables a more robust assessment of firm value, taking into account both accounting profits and cash flows, thereby enhancing the quality of investment decision-making.

Ohlson (1995) argument underscores the importance of considering cash flow as a complementary measure to earnings in the valuation process. While earnings provide valuable insights into a company's profitability, they may not always reflect its ability to generate cash or meet its financial obligations. Cash flow, on the other hand, offers a more direct measure of the actual cash coming in and going out of a business, providing a clearer picture of its liquidity and financial health. By incorporating cash flow analysis alongside earnings analysis, investors can gain a more comprehensive understanding of a company's financial performance and prospects. Cash flow metrics such as operating cash flow, free cash flow, and cash flow from financing activities can reveal important insights about a company's operational efficiency, capital allocation strategies, and ability to generate sustainable cash flows over time. Moreover, considering cash flow alongside earnings can help mitigate the effects of accounting distortions and manipulations that may affect reported earnings. This dual perspective allows investors to assess a company's financial position from multiple angles, enhancing the robustness and reliability of their valuation models and investment decisions.

Barker et al. (1999) argued that both earnings and cash flow from operations (CFO) contain incremental information content, suggesting that each metric provides unique insights into a company's financial performance and prospects. This assertion underscores the importance of considering multiple financial indicators when evaluating a firm's valuation and investment potential. Similarly, Habib (2008) conducted research in the New Zealand context and arrived at similar conclusions regarding the significance of both earnings and CFO. By affirming the complementary nature of these metrics, their findings support the notion that investors can benefit from analyzing both earnings and cash flow data to gain a more comprehensive understanding of a company's financial health and future prospects. These studies highlight the importance of taking a multifaceted approach to financial analysis, wherein investors consider a range of metrics and indicators to form a well-rounded assessment of a company's performance. By leveraging both earnings and cash flow information, investors can better evaluate a company's profitability, cash generation capabilities, and overall financial stability, thereby enhancing their decision-making processes in the investment arena.

Ball and Brown (1968) conducted pioneering research that revealed a positive relationship between stock returns and earnings. Their findings suggested that earnings have a stronger association with stock returns compared to cash flow. This insight has significant implications for investors and financial analysts, as it underscores the importance of earnings as a key determinant of stock performance. By demonstrating the relevance of earnings in influencing stock returns, Ball and Brown (1968) research highlighted the central role of earnings information in equity valuation. Investors often rely on earnings reports and earnings forecasts to gauge the profitability and financial health of companies, making earnings a crucial factor in investment decision-making processes. Moreover, the greater magnitude of the relationship between earnings and stock returns, as observed by Ball and Brown (1968), suggests that earnings announcements may have a more pronounced impact on market reactions compared to cash flow disclosures. This underscores the market's sensitivity to earnings-related information and underscores the significance of earnings as a leading indicator of stock price movements.

Board and Day (1989) conducted a study that revealed earnings contain relative and incremental information content beyond cash flow. This implies that earnings provide not only unique information but also additional insights beyond what is captured by cash flow data alone. Their research underscores the importance of considering both earnings and cash flow when analyzing financial performance and making investment decisions. While cash flow data are valuable indicators of a company's liquidity and ability to generate cash from its operations, earnings offer a broader perspective by incorporating various accounting adjustments and non-cash items. The finding that earnings contain relative and incremental information content beyond cash flow suggests that investors should pay close attention to earnings reports and earnings-related disclosures when evaluating investment opportunities. Earnings figures reflect not only the financial performance of a company but also incorporate management's accounting decisions and estimates, providing a more comprehensive view of its profitability and future prospects. By recognizing the unique and complementary roles of earnings and cash flow, investors can make more informed decisions about allocating their capital and assessing the financial health and growth potential of companies. This highlights the importance of considering multiple financial metrics and performance indicators when conducting fundamental analysis and valuing securities in the stock market. Dechow (2002) conducted a study that demonstrated earnings are more closely related to stock returns than cash flow. This finding highlights the significance of earnings as a key metric for assessing the performance and value of an organization in the eyes of investors and stakeholders. Despite its importance, reported earnings may not always accurately reflect the true economic income of an organization due to various limitations in accounting practices. To address this issue, the concept of earnings quality has emerged as a means of evaluating the reliability and relevance of reported earnings. Earnings quality encompasses various dimensions and can be defined in different ways depending on the context. Generally, it refers to the degree to which reported earnings accurately represent the underlying economic performance and financial position of a company. High-quality earnings are characterized by transparency, reliability, relevance, and consistency, providing investors with meaningful insights into a company's financial health and prospects. Assessing earnings quality involves analyzing various aspects of financial reporting, including the integrity of accounting policies and estimates, the transparency of disclosure

practices, the conservatism of earnings recognition, and the absence of earnings management or manipulation. By evaluating earnings quality, investors can make more informed decisions about the reliability of reported earnings and the trustworthiness of financial statements. This helps mitigate risks associated with investing in companies with low-quality earnings and enhances confidence in financial markets.

Penman and Zhang (2002) provided a definition of earnings quality as the ability of earnings to predict future earnings. This definition underscores the forward-looking aspect of earnings quality, suggesting that high-quality earnings not only reflect current performance accurately but also serve as reliable indicators of future profitability. In essence, earnings quality, according to Penman and Zhang (2002), is determined by the extent to which reported earnings align with the future earnings prospects of a company. Companies with high-quality earnings are expected to demonstrate consistency, reliability, and predictive power in their earnings performance over time. This implies that earnings quality is not only about the accuracy of reported earnings but also about their ability to provide valuable insights into the future financial performance and sustainability of a business. By focusing on the predictive ability of earnings, this definition highlights the importance of earnings quality for investors and analysts in assessing the long-term prospects and investment potential of companies. It suggests that high-quality earnings can serve as a reliable basis for forecasting future earnings growth, cash flows, and shareholder returns, thereby influencing investment decisions and valuation outcomes.

Bakkalbasi (2006) defined earnings quality as the relationship between accrual items and cash flows. This definition focuses on the composition of earnings and the extent to which accruals, which are non-cash accounting entries, affect reported earnings compared to actual cash flows generated by the business. Accruals represent transactions that have been recognized in the financial statements but have not yet resulted in cash movements. They include items such as accounts receivable, accounts payable, and deferred revenue. The use of accrual accounting allows companies to match revenues and expenses to the periods in which they are incurred, rather than when cash is received or paid out. Earnings quality, according to this definition, depends on the alignment between accrual-based earnings and cash flows. Higher-quality earnings are those that closely reflect the underlying cash-generating activities of the business, with lower levels of discretion or manipulation in the accruals process. In other words, when accruals are used judiciously and reflect the economic substance of transactions, earnings are considered to be of higher quality. By emphasizing the relationship between accruals and cash flows, this definition highlights the importance of transparency, reliability, and relevance in financial reporting. It suggests that earnings quality is enhanced when accruals accurately represent the economic reality of the business and provide users of financial statements with a faithful depiction of the company's financial performance and position.

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Dechow and Dechev (2002) conducted a study on accrual items using time series analysis. They found that accruals require assumptions and predictions of future cash flows. However, the quality of accrual items deteriorates as the prediction error of accrual figures increases. Their research suggests that accruals, while necessary for financial reporting purposes, introduce a level of uncertainty due to the need for estimation and prediction. When there is a higher degree of error in predicting future cash flows, the reliability and quality of accrual items decrease. This finding underscores the importance of accurately forecasting future cash flows when relying on accruals for financial reporting. It also highlights the challenges associated with estimating accruals and the potential implications for the quality of financial information provided to stakeholders. Chen et al. (2006) conducted a study to explore the relationship between earnings quality and stock returns. Their findings revealed that when earnings quality was low, stock returns tended to be low as well. Conversely, when earnings quality was high, stock returns were observed to be higher. This research highlights the significance of earnings quality in influencing investor perceptions and stock market outcomes. When companies demonstrate higher earnings quality, investors may perceive them as more reliable and trustworthy, leading to increased confidence and potentially higher stock returns. Conversely, lower earnings quality may raise concerns among investors about the accuracy and reliability of financial reporting, leading to lower stock returns as investors demand a higher risk premium. Chen et al.'s findings suggest that earnings quality plays a crucial role in shaping investor expectations and stock market performance.

Companies that prioritize transparency, accuracy, and reliability in their financial reporting may enjoy greater investor confidence and potentially higher stock returns compared to those with lower earnings quality. Dastgir and Rastegar's (2011) research sheds light on the intricate relationship between earnings persistence, accrual quality, and stock returns. Their findings underscore the significance of earnings persistence as a determinant of accrual quality, suggesting that companies with more consistent earnings tend to exhibit higher-quality accruals, reflecting greater reliability in their financial reporting. Furthermore, the study highlights the impact of accrual quality and size on stock returns. It suggests that investors may perceive firms with lower accrual quality and larger accruals as riskier investments, leading to higher expected returns to compensate for the perceived risks associated with these factors. This implies that accrual quality and size serve as important indicators for investors in assessing the risk-return profile of potential investments. By examining these relationships, Dastgir and Rastegar (2011) contribute to the understanding of how accounting quality measures, such as earnings persistence and accruals, influence investor perceptions and stock market outcomes. Their findings have implications for both financial reporting practices and investment decision-making, highlighting the importance of transparent and reliable financial information for market participants.

3. METHODOLOGY

In this study, we analyze stock returns, earnings per share (EPS), and cash flow from operations (CFO) to understand their respective impacts and information content. Stock returns (Retit) represent the returns of stock i in period t, calculated as the difference between the share price at the end of period t (Prit) and the share price at the beginning of period t (Pri(t-1)), plus any cash dividends (Divit) divided by the share price at the beginning of period t (Pri(t-1)). These returns are calculated over a 12-month period from the beginning to the end of year t. Earnings per share (EPS) is the operating earnings of the institution, excluding extraordinary items and non-operating income. It is calculated by dividing net income by the weighted average number of total outstanding shares.Cash flow from operations (CFO) represents the cash flow generated from operating activities. It is calculated by dividing the CFO from the weighted average number of outstanding shares of common stock.

The study employs three models:

Rit = 00 + 01EPSit (Model 1)

Rit = r0 + r1CFOit (Model 2)

Rit = B0 + B1EPSit + B2CFOit (Model 3)

Where 00, r0, B0 are constants, and 01, r1, B1, and B2 are the coefficients for EPS and CFO.

The first purpose of the study is to assess the individual value importance of EPS and CFO. Model (1) and Model (2) are used for this purpose. If the coefficient of EPS or CFO is significant in these models, it indicates their value importance. The second purpose is to analyze the incremental information content of EPS and CFO. Model (3) is employed for this purpose. If the information content of Model (3) is greater than that of Model (1), it suggests that CFO provides more information than EPS. Similarly, if the information content of Model (3) is greater than that of Model (2), it indicates that EPS has more information content than CFO.

4. RESULTS AND DISCUSSIONS

Table 1 presents descriptive statistics for three variables: Ret, EPS, and CFO. These statistics offer insights into the central tendency, variability, and distribution of each variable. The mean values provide a measure of central tendency, indicating the average value for each variable. For Ret, the mean is 0.28, suggesting that, on average, the rate of return is positive. Similarly, EPS has a mean of 0.161, indicating the average earnings per share, and CFO has a mean of 0.140, representing the average cash flow from operations. The median values represent the middle value of each variable when arranged in ascending order. For Ret, the median is 0.13, implying that half of the observations fall below this value. Similarly, EPS has a median of 0.14, and CFO has a median of 0.032. The maximum and minimum values depict the range of each variable's values. For Ret, the maximum value is 8.76, while the minimum is -0.82. EPS ranges from a maximum of 0.82 to a minimum of -0.28, and CFO ranges from 1.285 to -0.310. The standard deviation measures the dispersion or variability of the data points around the mean. For Ret, the standard deviation is 0.781, indicating a relatively wide dispersion of data points around the mean. Similarly, EPS has a standard deviation of 0.223, and CFO has a standard deviation of 0.242, suggesting variability in their respective values. These descriptive statistics provide a summary of the distributional characteristics of the variables Ret, EPS, and CFO, offering valuable insights for further analysis and interpretation.

Table 1: Descriptive statistics

variables	Mean	Median	Maximum	Minimum	Standard Deviation
Ret	0.28	0.13	8.76	-0.82	0.781
EPS	0.161	0.14	0.82	-0.28	0.223
CFO	0.140	0.032	1.285	-0.310	0.242

Table 2 presents the correlation matrix between three variables: Ret, EPS, and CFO. Correlation coefficients measure the strength and direction of linear relationships between pairs of variables. The correlation between Ret and EPS is 0.413, denoted by **, indicating a moderately positive correlation between these two variables. This suggests that there is some degree of association between the rate of return (Ret) and earnings per share (EPS), with a tendency for them to move together. Similarly, the correlation between Ret and CFO is 0.259, also denoted by **, indicating a moderately positive correlation. This suggests that there is some degree of association between the rate of return (Ret) and cash flow from operations (CFO), although the strength of this association is weaker compared to the correlation between Ret and EPS. Additionally, the correlation between EPS and CFO is 0.391, denoted by **, indicating a moderately positive correlation. This suggests that there is some degree of association between earnings per share (EPS) and cash flow from operations (CFO), with a tendency for them to move together. The correlation matrix provides insights into the relationships between these variables, helping to understand how changes in one variable may relate to changes in another variable.

Table 2: Correlation Matrix

Variables	Ret	EPS	CFO
Ret	1		
EPS	0.413**	1	
CFO	0.259**	0.391**	1

Table 3 displays the results for EPS, including coefficients, F-values, R-squared values, adjusted R-squared values, and AIC values for different models. For the first model, the constant term is -0.321 with a significant coefficient for ERC (-1.180). The F-value is 3.123, indicating the overall significance of the model. The R-squared value is 0.240, suggesting that around 24% of the variation in EPS is explained by the independent variable(s). The adjusted R-squared value is 0.231, which adjusts for the number of predictors in the model. The AIC value is -1.340. In the second model, the constant term is -0.201 with a significant coefficient for ERC (-2.912). The F-value is 1.916, indicating the overall significance of the model. The R-squared value is 0.150, and the adjusted R-squared value is 0.140. The AIC value is -1.021. For the third model, the constant term is -0.334 with a significant coefficient for ERC (-2.912). The F-value is 2.691, indicating the overall significance of the model. The R-squared value is 0.142, and the adjusted R-squared value is 0.132. The AIC value is -4.001. In the fourth model, the constant term is 1.231 with a significant coefficient for ERC (2.110). The F-value is 3.100, indicating the overall significance of the model. The R-squared value is 0.072, and the adjusted R-squared value is 0.062. The AIC value is -0.413. For the fifth model, the constant term is 0.177 with a significant coefficient for ERC (-1.131). The F-value is 4.130, indicating the overall significance of the model. The R-squared value is 0.312, and the adjusted R-squared value is 0.302. The AIC value is 0.181. In the sixth model, the constant term is -0.135 with a significant coefficient for ERC (-2.512). The F-value is 2.912, indicating the overall significance of the model. The R-squared value is 0.146, and the adjusted R-squared value is 0.142. The AIC value is -1.192.

Table 3: Results for EPS

Constant	ERC	F-Value	R^2	AR^2	AIC
-0.321*	3.123**	32.001**	0.240	0.231	-1.340
-1.180	4.120				
-0.201**	1.916**	16.311**	0.15	0.140	-1.021
-2.912	3.901				
-0.334**	2.691**	14.811**	0.142	0.132	-4.001
-2.912	2.813				
1.231	3.100**	5.159**	0.072	0.062	-0.413
2.110	2.162				
0.177	4.130**	28.113**	0.312	0.302	0.181
-1.131	4.421				
-0.135**	2.912**	69.014	0.146	0.142	-1.192
-2.512	6.520				

Table 4 provides a detailed overview of the regression outcomes for CFO, offering insights into the relationships between the variables under consideration. Let's delve deeper into each model's results: In the first model, the constant term stands at 0.098, indicating the intercept when all independent variables are zero. The coefficient for ERC (Economic Recovery Coefficient) is 0.516, which signifies the impact of economic recovery on CFO. The F-value of 2.631 suggests that the model is statistically significant. The R-squared value of 0.113 indicates that approximately 11.3% of the variation in CFO can be explained by the independent variables, with an adjusted R-squared value of 0.101. The Akaike Information Criterion (AIC) value of -2.441 is a measure of the model's goodness of fit. Moving to the second model, the constant term changes to -0.063, and the coefficient for ERC becomes -1.425. The F-value of 0.711 suggests that the model is significant

at the 10% level. The R-squared value is 0.073, indicating a slightly better fit than the first model. The AIC value of -0.057 suggests a better model fit compared to the first model. In the third model, the constant term is -0.137, and the coefficient for ERC is 0.612. The F-value is 0.118, suggesting a less significant model compared to the previous ones. The R-squared value is 0.052, indicating that the model explains only 5.2% of the variance in CFO. The AIC value of -2.481 indicates a relatively better model fit compared to the second model.

Moving to the fourth model, the constant term changes to 0.342, and the coefficient for ERC becomes 1.707. The F-value of 2.100 suggests that the model is statistically significant. The R-squared value is 0.071, indicating that around 7.1% of the variance in CFO is explained by the independent variables. The AIC value of -0.668 suggests a slightly better model fit compared to the third model. In the fifth model, the constant term is 0.129, and the coefficient for ERC is 0.423. The F-value of 1.412 indicates that the model is significant, albeit at a lower significance level compared to previous models. The R-squared value is 0.116, suggesting a better fit than the fourth model. The AIC value of -1.591 indicates a relatively good model fit compared to previous ones. In the sixth model, the constant term changes to 0.009, and the coefficient for ERC becomes 0.156. The F-value of 1.531 suggests that the model is significant. The R-squared value is 0.053, indicating that the model explains around 5.3% of the variance in CFO. The AIC value of -0.279 suggests a relatively better model fit compared to the fifth model. These regression outcomes provide valuable insights into the relationship between ERC and CFO, helping to inform decision-making processes related to financial management and forecasting.

Table 4: Results for CFO

Constant	ERC	F-Value	R^2	AR^2	AIC
0.098	2.631	10.571**	0.113	0.101	-2.441
0.516	3.301				
-0.063	0.711**	6.231**	0.073	0.061	-0.057
-1.425	2.556				
-0.137	0.118	0.052**	0.011	0.001	-2.481
0.612	0.281				
0.342	2.100**	6.731**	0.071	0.059	-0.668
1.707	2.513*				
0.129	1.412**	9.812**	0.116	0.104	-1.591
0.423	3.101				
0.009	1.531**	26.180**	0.053	0.051	-0.279
0.156	5.213				

Table 5 presents the results for EPS and CFO, examining their relationship with a constant term and coefficients for B1 and B2 across different models. Let's analyze each model's outcomes: In the first model, the constant term is 0.232, and the coefficients for B1 and B2 are -1.774 and 3.521, respectively. The F-value of 4.312 suggests that the model is statistically significant. However, the R-squared value of -0.039 indicates that the model does not explain much of the variation in EPS and CFO. The adjusted R-squared value is 0.231, and the AIC value of -0.391 indicates the model's goodness of fit. Moving to the second model, the constant term changes to -0.191, and the coefficients for B1 and B2 become -3.201 and 1.351, respectively. The F-value of 3.152 suggests that the model is statistically significant, with an R-squared value of 0.342 indicating a better fit than the previous model. The adjusted R-squared value is 0.151, and the AIC value of -0.042 suggests a relatively better model fit compared to the first model. In the third model, the constant term is -0.172, and the coefficients for B1 and B2 are -2.435 and 2.213, respectively. The F-value of 4.206 indicates that the model is statistically significant. However, the R-squared value of -0.581 suggests that the model does not explain much of the variance in EPS and CFO. The adjusted R-squared value is 0.142, and the AIC value of -1.274 indicates the model's goodness of fit.

Moving to the fourth model, the constant term changes to 0.019, and the coefficients for B1 and B2 become 0.096 and 3.612, respectively. The F-value of 2.321 suggests that the model is significant, with an R-squared value of 1.267 indicating a better fit than the previous model. The adjusted R-squared value is 0.122, and the AIC value of -2.661 suggests a relatively better model fit compared to the third model. In the fifth model, the constant term is -0.091, and the coefficients for B1 and B2 are -1.411 and 2.213, respectively. The F-value of 4.391 indicates that the model is statistically significant. However, the R-squared value of 0.615 suggests that the model does not explain much of the variance in EPS and CFO. The adjusted R-squared value is 0.251, and the AIC value of -0.201 indicates the model's goodness of fit. Moving to the sixth model, the constant term changes to -0.152, and the coefficients for B1 and B2 become -3.113 and 2.691, respectively. The F-value of 6.691 suggests that the model is statistically significant. However, the R-squared value of 0.581 suggests that the model does not explain much of the variation in EPS and CFO. The adjusted R-squared value is 0.152, and the AIC value of -1.043 suggests a relatively better model fit compared to the fifth model. These regression outcomes provide valuable insights into the relationship between EPS and CFO, helping to inform decision-making processes related to financial management and forecasting.

Table 5: Results for EPS and CFO

Constant(B_0)	B_1	B_2	F-value	R^2	AR^2	AIC
0.232*	3.521**	-0.039	15.700**	0.251	0.231	-0.391
-1.774	4.312	-0.041				
-0.191**	1.351**	0.342	8.283**	0.171	0.151	-0.042
-3.201	3.152	1.072				
-0.172*	2.213**	-0.581	8.612**	0.161	0.142	-1.274
-2.435	4.206	-1.411				
0.019	3.612*	1.267	6.810**	0.142	0.122	-2.661
0.096	2.321	1.431				
-0.091	2.213**	0.615	15.133**	0.271	0.251	-0.201
-1.411	4.391	1.304				
-0.152	2.691**	0.581	37.756**	0.155	0.152	-1.043
-3.113	6.691	1.801				

5. CONCLUSIONS

The purpose of this study is multifaceted. Firstly, it aims to scrutinize the information content of earnings per share (EPS), delving into its significance in stock valuation. Secondly, it seeks to evaluate the value relevance of cash flow from operations (CFO), determining its impact on investors' decisions and firm valuation. Thirdly, the study endeavors to compare the relative information content of EPS and CFO, assessing which metric holds greater weight in informing investment decisions. Finally, it aims to explore the incremental information provided by EPS beyond CFO, elucidating whether EPS offers additional insights beyond what CFO provides. Through these objectives, the study aims to contribute to a deeper understanding of the role of EPS and CFO in stock valuation and investment decision-making. Our study contributes to the existing literature by providing empirical evidence on the value relevance of EPS and CFO, as well as their relative information content in explaining stock returns. By employing rigorous statistical analysis techniques and considering a comprehensive set of factors, we were able to elucidate the significance of these metrics in informing investment decisions. Furthermore, our findings have practical implications for investors, financial analysts, and policymakers. Understanding the value relevance of EPS and CFO can aid investors in making informed decisions regarding stock selection and portfolio management. Similarly, financial analysts can utilize this information to assess the financial performance and valuation of companies more effectively. Moreover, policymakers and regulatory authorities may benefit from our insights into the relative importance of EPS and CFO in financial reporting and disclosure practices. By recognizing the informational value of these metrics, policymakers can develop regulations and standards that promote transparency and accuracy in financial reporting, ultimately enhancing investor confidence and market efficiency. Overall, our study underscores the importance of EPS and CFO in financial analysis and decision-making processes, while also shedding light on their relative significance and informational content. This research contributes to a deeper understanding of the factors driving stock returns and firm valuation, ultimately facilitating more informed investment decisions and fostering financial market efficiency.

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