An Empirical Investigation on the Understandability of Accounting Income

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This study surveys ninety-four well-educated and experienced accountants and individuals with mostly decent knowledge of accounting, some of whom own shares. Concerning findings are reported. The majority of participants generally do not comprehend that accounting income has no empirical reference, leading some to reveal the possibility of proving it. This understanding of the nature of accounting income partnered with a general agreement that different accountants can reach an exact accounting income for the same reporting entity when the same accounting standards are applied. Moreover, participants mostly demonstrate a sound understanding that calculating accounting income depends on both professional judgments applied to the implementation of financial accounting standards and on estimates involved in calculating accounting income. Comprehending such a nature, they articulate that accounting income is manipulatable whether for ethical or unethical purposes. Still, they rely on accounting income in making investment decisions. The Capital Market Authority should launch a campaign to educate individual investors about the nature and the limitation of such a figure.

Keywords: accounting income, calculation, scientific figure

INTRODUCTION

Achieving profit is the reward that motivates individuals and entities conducting businesses. Logically in order to continue the business, achievements should surpass efforts where surplus can be used for expanding the business or for the utility of the business owners in the form of dividends.

Accounting is not the only profession that is charged for defining and measuring income. Economics, for example, has its own definition of income. The wealth of an individual is measured by how better off the person is at the end of the period in comparison to the beginning of the period. Economically, the net wealth of a person is the difference in accumulated wealth between two points in time. Put differently, "…the excess of the total business assets over the equivalent of the capital invested at the beginning of the period" (Hayek, 1935). While the economic fashion of viewing income seems theoretically suitable and valid, issues that emerge while practicing accounting averts adopting the economic version of income for accounting measurement purposes (AlSultan, 1981). Comparing accounting income to economic income to define it (Alsultan, 1981; Chang, 1962; Procházka, 2006; 2009; Solomons, 1961) has led to criticism of utilizing economic income in attempts to define it (Ryan, 2007).

Implemented accounting measurements and disclosures take in estimates and assumptions (Brief, 1993a; Brief & Owen, 1970; 1973). "[T]he disposition of income, depreciation, reserves and other elements in the financial statement represent the very essence of business judgment, and they are always open to an argument" (the American Institute of Accountants)[1]. Accounting figures may or may not signify phenomena (Sterling, 1988) including accounting income. With no empirical reference (Mouck, 2004), accounting income is not scientifically determined (Kelley, 1951). Accounting income diverges from purported "true", "real," and "economic" income (Horngren, 1955: 575).

Accounting notions are constructed in the prearranged designation "and loose language" (Brief, 1993b: xi). Brief (1993b: xi) also declared that "ambiguity and wishful thinking about how closely accounting numbers correspond to "economic reality" had no place in accounting." Accounting reality does not reflect the economic reality that users of financial statements perceive to underlie the enterprise (Al-Adeem, 2017; Brearey and Al-Adeem 2019; White et al, 2001). Accounting reality is a construct (Hines, 1988) where uncertainty (Brief, 1993b: xii), but not perception, dictates the accountant's surroundings when constructing such a reality for users of corporate reports. Certainty is the free-standing of the accounting field (Alharbi & Al-Adeem, 2022: 27).

The lack of a theoretical ground for financial accounting (Al-Adeem, 2017a, 2017b, 2017c; 2019a; 2019b; 2019c; 2021a; 2023a; 2023b; Al-Adeem & Fogarty, 2010; Al-Hazzani & Al-Adeem, 2020; Brearey, & Al-Adeem, 2019; Beaver, 2002; Belkaoui, 2004; Chatfield, 1977; Coetsee, 2010; Gaffikin, 1987; García, 2017; Ijiri, 1967; King, 2006; Lee, 2009; *Statement on Accounting Theory and Theory Acceptance (SATTA)*[2], 1977) legitimizes the constitutionality of conceptual frameworks for financial accounting to found a base for the preparation of financial statements and reports (Al-Adeem, 2023a; Gore, 1992; Kieso et al., 2004).

Conceptual frameworks for financial accounting assume a level of understanding that users of corporate reports possess. Item 2.36 of the International Accounting Standards Board's (IASB) conceptual framework demonstrates that conveyed financial information in corporate reports is presented for the utilization of diligent users who possess knowledge of business and economics[3]. Users in Saudi Arabia grasped the outcomes of methods of revenue recognition, accounting choices in measuring fixed depreciable assets, and various accounting measurement options in valuing cost inventory on the financial position and income statements of a reporting accounting entity (Alharbi & Al-Adeem, 2022). However, whether users of financial statements comprehend that the nature of accounting income and methods of calculating adds to the accounting literature and leads to implication for accounting professional bodies.

The remainder of this paper is organized as follows. Section 2 reviews the related literature on those who are deemed by professional accounting bodies as the primary users of corporate reports, the significance of income determination for them, and the mis conceptualization that may occur when relying on accounting income by such users. Section 3 describes the research method used for collecting data. Section 4 and 5 consequently presents and discusses the research findings. Section 6 concludes with concerning findings, proposes implications, highlights constraints that limit such conclusions, and suggests paths for future research.

LITERATURE REVIEW

Users of Corporate Reports: Serving Imaginary Users

Devine (1960: 399 as cited in Belkaoui 2004: 163) argued that,

> "…the first order of business in constructing a theoretical system for a service function is to establish the purpose and the objectives of the function. The objectives and purposes may shift through time, but for any period, they must be specified or specifiable."

Some accounting researchers attacked the Financial Accounting Standards Board's (FASB) approach to instituting realities of financial accounting (Lee, 2006a, 2006b; Macintosh, 2006; Mattessich, 2009; Williams, 2006). The FASB's suggested objectives were not based on a thorough study of users' needs

(Macve, 1981). Rather, members of FASB determined the objectives of financial reporting (Nurnberg, 2015).

The financial accounting objectives, definitions, and standards are constructed on an imaginary concept of decision-usefulness. An image of financial statement users with rational economic decision capabilities is pretended (Al-Adeem, 2021; Young, 2006), while probably in reality such an image has not yet been achieved. FASB individual board members' opinions are the base for such a concept (Nurnberg, 2015), leading to arguing that proposed users of financial statements are supposedly made, yet not in actuality (Young, 2006). Such a concept may not lead to sound abstract grounds for financial accounting (Coetsee, 2010) and corporate reporting.

Limiting the aim of financial accounting to segments of corporate reports' users who finance the accounting entity's operations, namely shareholders and debtholders, does not free it from its responsibility toward other stakeholders (Shearer, 2002). Shareholder value maximization is a myth (Stout, 2012; Stevelman, 2013; Weinstein, 2013). Still, some corporate executives presume that they exist in accounting entities to maximize the return on the shareholders' investments. For example, Jeffrey Skilling, a young Harvard MBA (as quoted in Levy, 2014: 210) declared that "My job as a businessman…is to be a profit center and to maximize return to the shareholders."

Furthermore, Gaa (1988: 73) argued "…parts of the FASB's conceptual framework may be viewed as a theory of individual interests in financial information." A conceptual framework that is adopted by the FASB should suffer from such a deficiency.

In Saudi Arabia, presumed users of corporate reports are postulated to be in need of information about the performance of the companies in which they invested their wealth and savings and to be capable of processing it rigorously. The approach used by the Saudi Organization for Accountants and Auditors (SOCPA)[4] was, as Alhumaid (2009) labeled, to begin from where others have reached to carry on the evolution of the accountancy profession in Saudi Arabia.

The pronouncement issued by the Saudi Organization of Accountants and Auditors (SOCPA) is assumed that shareholders and debtholders are the main users of corporate financial statements (*Objectives of Financial Accounting*, Par. 52). In Par. 71, *The Objectives of Financial Accounting* determines income measurement is among the need of corporate financial statements' users in Saudi Arabia.

The *Objectives of Financial Accounting* as an element of the conceptual framework of financial accounting in Saudi Arabia is supposed to be a Saudi-made pronouncement. Apparently, Saudi accounting researchers declare otherwise (Al-Adeem, 2017c, 2020, Alhumaid, 2009; Almoghaiwl, 2003). In fact, the analytical study[5], which SOCPA prepared and from which the *Objectives of Financial Accounting* Statement has been drafted, does not include any sort of field study or evidence of surveying users of financial statements in Saudi Arabia. Utilizing the efforts made in the US to construct a conceptual framework or financial accounting by Saudi professional bodies is no exception. Several other countries have imitated it (Zeff, 1999).

Since 2017, International Financial Reporting Standards (IFRS) has been officially adopted and implemented in Saudi Arabia[6]. Item 1.4 of the IASB's conceptual framework states that,

> "The objective of general purpose financial reporting is to provide financial information about the reporting entity that is useful to existing and potential investors, lenders, and other creditors in making decisions relating to providing resources to the entity…"[7]

In addition, the IASB's conceptual framework stresses on shareholders' and debtholders' needs for information which makes them the primary users of the financial statement. Specifically, item 1.5 of the conceptual framework reports that,

> "Many existing and potential investors, lenders, and other creditors cannot require reporting entities to provide information directly to them and must rely on general purpose financial reports for much of the financial information they need. Consequently, they are the primary users to whom general purpose financial reports are directed."[8]

"There is today no agreement among theorists as to the basic ideas that should govern financial accounting for general purpose statement" (Anthony, 1983: 10). "Decision usefulness has been labeled as the objective of financial reporting. But useful to whom?" (Bricker and Previts, 1992: 22).

Calculating net income in accordance with various financial accounting standards yields different income numbers. Subscription to the decision-usefulness paradigm (SATTA, 1977) has shifted the focus in accounting to the valuation of assets and liabilities at the expense of income measurement (Saito & Fukui, 2016: 15). Ryan (2007: 44) observed,

> "While economic income has not been relied on directly in the conceptual frameworks of the professional bodies, it appears to have been used indirectly to support certain concepts, for example, the concept of "fair value", under the rubric of "relevance". In addition, "economic substance" has been used to support measurements in financial statements. These are complex matters that will not be resolved easily."

Modern-day accounting scandals have lowered financial reports' reliability causing more awareness about the representation of accounting realities (Schiehll et al., 2007). Stamp (1981: 221) suggested: "… a more flexible method…that is orientated toward users' needs rather than from a priori axioms and definitions, is likely to be more effective in creating a consensus in favor of the resulting standards." The narrowly defined decision-usefulness approach (Nurnberg, 2015; Horgans, 1981) has recently been reevaluated and reconsidered (Williams & Ravenscroft, 2015). A long time ago, financial analysts are argued to be the primary users of financial statements instead (Horgens, 1955: 581). The adoption of objectives for financial accounting that are made up elsewhere in the globe does not guarantee their suitableness to the country in which they are adopted (see Al-Adeem, 2020b).

Significance of Income Determination

The role of accounting has changed in contemporary time radically (e.g. Al-Adeem, 2022a; *A Statement of Objectives of the American Accounting Association*, 1936) in a way that "ancients" did not predict (Littleton, 1928). Whereas owners were in personal contact with their businesses and the infrequent computation of a profit and loss account in the ledger was sufficient for their needs (Littleton, 1928: 138), investors in corporations are in isolation from day-to-day transactions alerting accounting for a new, probably progressive, role to assume in the corporate economy. Venture capitalists, who do not run their businesses, are uninformed of everyday operations, which places them in a vulnerable position (Baskin and Miranti, 1997). Trustworthy measures backing stockholders in measuring the performance of enterprises of great scale and scope (Baskin and Miranti, 1997: 204) have emerged as a need with the prolonging corporate economy.

Even though corporate performance measurements such as earnings per share (EPS) (Islam et al. 2014), triple bottom line (Norman & MacDonald, 2004; Elkington, 1997; 2004; Adams et al., 2004; Rob and Milne, 2004), economic value added (EVA) (Chen & Dodd, 1997; Fernandez, 2015), EBITDA (Zelmanovich & Hansen, 2017; Cormier, Demaria & Magnan, 2017; Brockman & Russell, 2012) exist, profit measurement appears superior (Egginton, 1984). "The income statement is regarded as the most important reflector of the operations of the firm" (Horngren, 1955: 576). In addition, "accountants' figures are of more and more importance as a tool of management" (the American Institute of Accountants)[9].

Profit has flourished in a corporate model of an economy in comparison to other previous forms of markets (Levy, 2014). "[F]undamentally income…is the central theme of account-keeping as it is the focal center of the business enterprise" (Littleton, 1937: 2). Corporate financial reporting in theory and practice is classically positioned on the conception of income measurement (Beaver & Demski, 1979). With the emergence of a bunch of entities, what constitutes income and profit has been an accounting debate for quite a long time to answer (e.g., Beaver & Demski, 1979; Bedford, 1965; Bauer, 1937; Chang, 1962; Dickinson, 1904; Edwards & Bell, 1965; Gilman, 1956; Kelley, 1951; Kuter et al., 2022; Lee, 1994; Littleton, 1928, 1937; Report of Study Group on Business Income, 19755; Saito & Fukui, 2019; Schmidt, 1931; Sterling, 1970; Solomons, 1961). In a free-enterprise-economic system, income figures convey how well individuals are doing as a state (the American Institute of Accountants)[10].

Calculating periodic "income has been developed upon the foundation of a real concept of net income" (Littleton, 1937: 22). The profits of a corporation "may be stated as the realized increment in the value of the whole amount invested in an undertaking; and, conversely, loss is the realized decrement in such value" (Dickinson, 1904: 1). The development of the terms, "earnings" and "income" in contrast with "profits" (Littleton, 1928: 139) is a reflection of the emergence of continuance business as opposed to disjoined ventures for example "[s]ilent partnerships" that existed in Italy (Baskin & Miranti, 1997: 52).

Determining net income is puzzling (Goldberg, 1997). Past oppositions to dividends out of assets urged the need to as it should be determined periodic profits (Littleton, 1928: 139). To support this, since asset accumulations grow out of periodic profit (Littleton, 1937: 13), and since the classical model of accounting measurement lacks to measure invested expenditure, and intangible assets, and hence the balance sheet fails to disclose such assets that contribute to the earnings of a business, income statement remedies such deficiency (Penman, 2009).

Ironically, accounting for net income and income measurement even contribute to societal inequality during crises (Sikka, 2015). Lee (2005: 14) deemed income among the accounting notions that are debatable danger ontologically and epistemologically for researchers. Without a thorough understanding of the concept of income, continuing restructurings of accounting standards that concentrate "on flow information including income recognition" cannot be effectively carried out (Saito & Fukui, 2016: 15).

Misconceptualizing Accounting Income

Bookkeeping procedures nearly all times appear problematic to the nonprofessional, and for a business of any scale, they are equally complex (the American Institute of Accountants)[11]. Varying in practices and selecting between options in accounting for the business transaction is common which yields approximations but not defiant figures (Kelley, 1951; Mouck, 2004). For instance, net income is an accounting figure that has no neutral reference in either physical or institutional reality (Mouck 2006: 540; see also Lee 2006). Whether income signifies natural economic substance of an enterprise has been challenged in accounting research (Macintosh, 2006: 22-23).

Through utilizing accounting that is permissible in accounting principles, management can manipulate accounting income figures for several reasons to appear more appealing to external users (Wang, 2014). The lack of income definition diverges the understanding of the concept of income from an accounting perspective, and hence the definition of accounting income remains empty, which may constrain the use of income by users (Ball & Brown, 1968).

Calculating accounting income involves judgments, and placing assumptions about the accounting entity whose performance is being measured. It also includes the selection of alternative methods to account for the financial transactions of the firm's economic events. In a speech, the American Institute of Accountants[12] declares that "what most people want to know when they look at an income statement is how business is doing, rather than what it would be worth if it had to be liquidated suddenly." Whether individuals in the Saudi capital market comprehend the nature of the income figure deserves exploration. Whether accounting income is understood is an empirical question. Such an inquiry adds to our knowledge and leads to implications for accounting professional bodies in educating users and enhancing their awareness of what constitutes income.

RESEARCH METHOD

A web-based questionnaire was developed for collecting data to explore the understanding of users of financial statements in Saudi Arabia toward accounting income. To increase the participation of users, the survey was prepared and made available in Arabic and English language. The two-part survey includes 16 items that are carefully constructed and thoroughly reviewed and judged to assure their accuracy in extracting users' comprehension of accounting income. Accounting academics working in different institutions in Saudi Arabia and certified public accounting practitioners have assessed the items. The evaluation was executed in two rounds.

Two accounting academics from different academic institutions and a certified public accountant reviewed and judged the initial version of the items in the first round. All their comments have been incorporated including revising and modifying items. Two more items were added following their advice.

In the second round, three more accounting academics from different academic institutions reviewed the items in both languages to assure their accuracy. Comments and suggestions concerning the wording to assure corresponding meaning in both languages have been incorporated. No major concern has been brought up by any of the reviewers. A 5-point Likert scale was used to measure the variability in opinions among the sampled accounting academics.

The second part of the inquiry form includes a list of queries about the subjects' demographics and items inquiring about their experience in accounting and backgrounds in their education. An item inquiring about the subject's nationality is included to control nationality. Following Omitogun and Al-Adeem's (2019) advice, an item to control for geographic location is included. Subject matter experts were asked to report the level of their experiences in accounting. To have a deeper insight into the sample, an item enquires about whether the respondents' own shares. Others items related to age and gender, education, and majors were included. It is important to know whether the sampled individuals were educated and experienced.

A pilot study was conducted on ten graduated accounting students who have a graduate degree in accounting and knowledge of research. They were native Arabs who possess proficiency levels in the English language. Each one of them took the survey in both languages. Only a few comments have been reported all of which were minor and were about better wording of some terms. All their comments have been incorporated. The questionnaire was then distributed using social media platforms in both languages leaving the subjects to choose the language they prefer to take the survey.

RESEARCH FINDINGS

Demographic Data of the Sample

Ninety-four individuals voluntarily took part in the questionnaire. While, 9 took the English version of the survey, the remaining took it in Arabic. Out of the entire sample, 94.7 are Saudis and 93.6 reside in Saudi Arabia. Table (1) presents the demographic data of the sample.

TABLE 1
DEMOGRAPHIC DATA

		No.	%
Nationality	Saudi	89	94.7
	Other	5	5.3
Geography Location	In Saudi Arabia	88	93.6
	Outside Saudi Arabia	6	6.4
Gender	Male	58	61.7
	Female	36	38.3
Stock Ownership	Yes	59	62.8
	No	35	37.2
Age	Less than 30 years	27	28.7
	More than 30 years but less than 40 years	40	42.6
	More than 40 years but less than 50 years	17	18.1
	More than 50 years but less than 60 years	10	10.6

		No.	%
Education	B.Sc.	42	44.7
	Master Degree.	43	45.7
	Ph.D.	6	6.3
	other	2	2.1
	in progress	1	1.1
Accounting Expertise	none	1	1.1
	Weak	9	9.6
	Moderate	34	36.2
	Advanced	34	36.2
	Expert	16	17.0
Major	Accounting	79	84%
	Business Administration	9	9.5%
	Finance	1	1.1%
	Other	5	5.3%

The sample is diversified as far as the gender is concerned where 38.3 of the subjects are female. The ages of the participants vary between 30 and 60 years old. Approximately, two third of them are below 40 years old. The sampled subjects are well-educated in accounting and related subjects. More than half of them hold master's and B.Sc. degrees.

Generally, the sampled individuals possess accounting knowledge. 17% of them report that they are experts. Slightly above 72% of them have moderate or advanced knowledge of accounting. Possession of such knowledge is justified by their majors where 84% are accounting majors. 9.1% of the sample majored in business and one in finance. Other majors represent slightly above 5%. Apparently, the sample virtually possesses a level of knowledge in accounting and accounting information needed for decision-making that accounting professional bodies assume (Alhumaid, 2009) that accounting research stresses (Alharbi and Al-Adeem, 2022).

Responses to the Survey Items

Table (2) presents sampled individuals' responses to the survey questions.

TABLE 2
PARTICIPANTS' RESPONSES (N= 94)

No.	Statement	Response	No.	%
1	Accounting income is a scientific figure	Don't Know	10	10.6
		No	31	33.0
		Yes	53	56.4
2	Two different accountants will reach the same accounting income for a single accounting entity if they use the same accounting standards and the same management estimation	Don't Know	7	7.4
		No	20	21.3
		Yes	67	71.3
3	Adopted accounting standards affect the calculation of accounting income	Don't Know	3	3.2
		No	6	6.4
		Yes	85	90.4
4	Management estimates affect the calculation of accounting net income	Don't Know	4	4.3
		No	11	11.7
		Yes	79	84.0

No.	Statement	Response	No.	%
5	From the scientific nature of accounting, no matter who calculates the accounting income of an accounting entity, the exact accounting income is reached	Don't Know	15	16.0
		No	35	37.2
		Yes	44	46.8
6	Accounting income figure disclosed in the income statement represents cash available for distribution	Don't Know	9	9.6
		No	77	81.9
		Yes	8	8.5
7	Disclosed net income in the income statement indicates that the company has liquidity	Don't Know	3	3.2
		No	71	75.5
		Yes	20	21.3
8	Calculating accounting income can be manipulated	Don't Know	6	6.4
		No	4	4.3
		Yes	84	89.4
9	Accounting income reported in the income statement can be proven	Don't Know	7	7.4
		No	12	12.8
		Yes	75	79.8
10	I trust the accounting income in making investment decisions	Don't Know	13	13.8
		No	27	28.7
		Yes	54	57.4
11	Using the accounting income as measurement to assess financial performance of the company is enough to capture the firm's economic reality	Don't Know	2	2.1
		No	69	73.4
		Yes	23	24.5
12	Accounting income is valid and free from errors	Don't Know	6	6.4
		No	75	79.8
		Yes	13	13.8
13	Managers can affect accounting income by increasing or decreasing it in unethical methods.	Don't Know	8	8.5
		No	4	4.3
		Yes	82	87.2
14	Managers can affect accounting income by increasing or decreasing it in ethical methods.	Don't Know	9	9.6
		No	11	11.7
		Yes	74	78.7
15	Accounting income is the return on the invested assets during the accounting period.	Don't Know	7	7.4
		No	39	41.5
		Yes	48	51.1
16	Accounting income is the growth on the net assets (owner equity) that is occurred during the accounting period.	Don't Know	7	7.4
		No	27	28.7
		Yes	60	63.8

Approximately, 82% of the respondents realize that the accounting income figure disclosed in the income statement does not represent essentially cash available for distribution. In addition, 75.5% of the respondents apprehend that the accounting income figure disclosed in the income statement does not necessarily indicate that the company has liquidity.

However, respondents do not appear to fully comprehend the nature of accounting income. 53% of them report that the accounting income is a scientific figure. Slightly above 10% of them do not know whether it is scientific. Only a third of them clearly stated that it is not scientific.

While above 73% of them do not believe that using accounting income as measuring and assessing the financial performance of companies is enough to capture the firm's economic reality, variation among respondents as to what accounting income represents exists. Approximately, half of the sample could not agree that accounting income is the return on the invested assets during the accounting period. About 64%

of them agree that accounting income is the growth in the net assets (owner equity) that occurred during the accounting period. Clearly, the sampled individuals generally do not fully comprehend that accounting income is a measure of corporate performance over a period of time which permits defining it as a return on capital or invested assets in the business.

Above 90% of the sampled subjects affirmed that adopted accounting standards affect the calculation of accounting income and 84% of them acknowledge that management estimates affect the calculation of accounting net income. Nevertheless, above 70% of them indicate that two different accountants will reach the same accounting income for a single accounting entity if they use the same accounting standards and the same management estimation. Such a finding is no wonder as the majority of them (approximately 80%) indicate that accounting income reported in the income statement can be proven. On the contrary, only slightly above 46% concord that the exact accounting income cannot be reached independently from whom calculated it. That is, only 37.1% of them reveal that from the scientific nature of accounting, no matter who calculates the accounting income of an accounting entity, the exact accounting income is reached, while 16% of the sampled individuals do not know.

Nearly 90% of the sampled subjects consider that calculating accounting income can be manipulated. Just about 80% of them report that accounting income is not valid and even not free from errors. Slightly above 87% and above 78% of them consequently believe that managers can affect accounting income by increasing or decreasing it with unethical and ethical methods. Still, marginally above 57% of them trust the accounting income in making investment decisions leaving the other half of the sample not trust it or are unsure about it.

Further Analysis

Wrong Responses

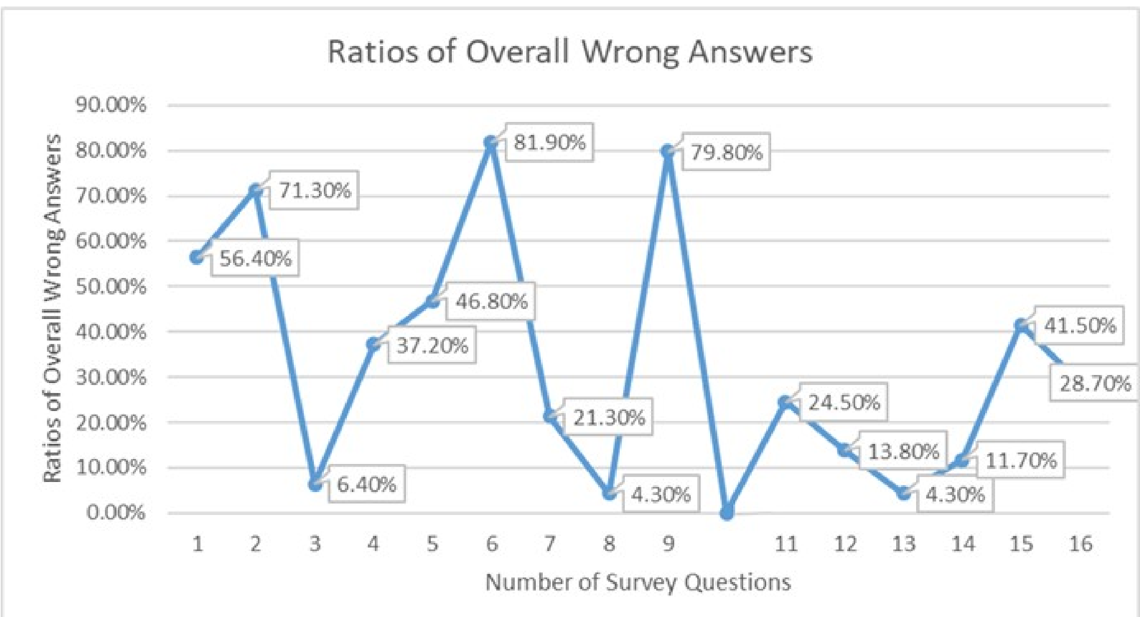
TABLE 3
PARTICIPANTS' WRONG RESPONSES (N= 94)

No.	Statement	Wrong Response	No.	%
1	Accounting income is a scientific figure.	Yes	53	56.4
2	Two different accountants will reach the same accounting income for a single accounting entity if they use the same accounting standards and the same management estimation.	Yes	67	71.3
3	Adopted accounting standards affect the calculation of accounting income.	No	6	6.4
4	Management estimates affect the calculation of accounting net income.	No	35	37.2
5	From the scientific nature of accounting, no matter who calculates the accounting income of an accounting entity, the exact accounting income is reached.	Yes	44	46.8
6	Accounting income figure disclosed in the income statement represents cash available for distribution.	No	77	81.9
7	Disclosed net income in the income statement indicates that the company has liquidity.	Yes	20	21.3
8	Calculating accounting income can be manipulate.	No	4	4.3
9	Accounting income reported in the income statement can be proven.	Yes	75	79.8

No.	Statement	Wrong Response	No.	%
11	Using the accounting income as measurement to assess financial performance of the company is enough to capture the firm's economic reality.	Yes	23	24.5
12	Accounting income is valid and free from error.	Yes	13	13.8
13	Managers can affect accounting income by increasing or decreasing it in unethical methods.	No	4	4.3
14	Managers can affect accounting income by increasing or decreasing it in ethical methods.	No	11	11.7
15	Accounting income is the return on the invested assets during the accounting period.	No	39	41.5
16	Accounting income is the growth on the net assets (owner equity) that is occurred during the accounting period.	No	27	28.7

Out of 1410[13], 498 wrong answers the sampled individuals provided. 35.32% of the answers were wrong. Figure (1) displays the wrong answer.

FIGURE 1
RATIO OF OVERALL WRONG ANSWERS



The items that are related to the unscientific nature of accounting income, the inability to prove it due to the lack of empirical references, and to the fact that it is not associated with cash are the highest not understood by the sample. Clearly, the nature of accounting income is not well understood. 46.8% of the sample declare that the scientific nature of accounting, no matter who calculates the accounting income of an accounting entity, the exact accounting income is reached. The nature of accounting is already established in the accounting literature as being social (Mautz, 1963), not like physics (Stamp, 1981; see also Stamp, 1993[14]).

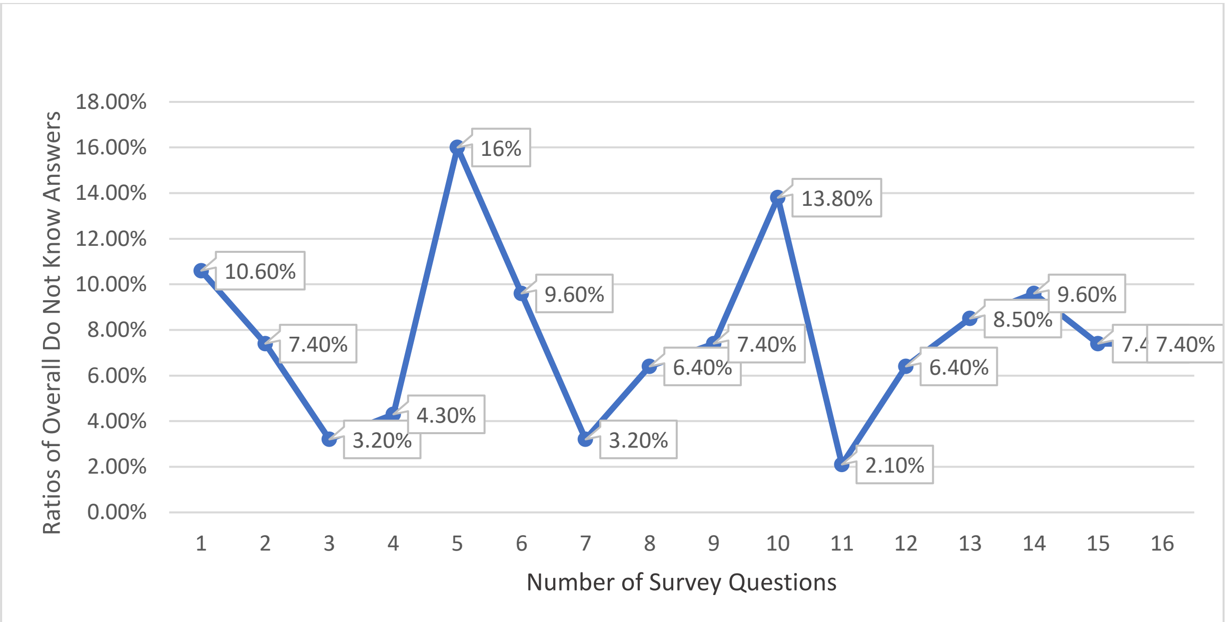
Undecided Answers (Do Not Know)

TABLE 4
PARTICIPANTS' UNDECIDED RESPONSES (N= 94)

No.	Statement	Undecided Response	No.	%
1	Accounting income is a scientific figure.	Don't Know	10	10.6
2	Two different accountants will reach the same accounting income for a single accounting entity if they use the same accounting standards and the same management estimation.	Don't Know	7	7.4
3	Adopted accounting standards affect the calculation of accounting income.	Don't Know	3	3.2
4	Management estimates affect the calculation of accounting net income.	Don't Know	4	4.3
5	From the scientific nature of accounting, no matter who calculates the accounting income of an accounting entity, the exact accounting income is reached.	Don't Know	15	16.0
6	Accounting income figure disclosed in the income statement represents cash available for distribution.	Don't Know	9	9.6
7	Disclosed net income in the income statement indicates that the company has liquidity.	Don't Know	3	3.2
8	Calculating accounting income can be manipulated.	Don't Know	6	6.4
9	Accounting income reported in the income statement can be proven.	Don't Know	7	7.4
10	I trust the accounting income in making investment decisions.	Don't Know	13	13.8
11	Using the accounting income as measurement to assess financial performance of the company is enough to capture the firm's economic reality.	Don't Know	2	2.1
12	Accounting income is valid and free from errors.	Don't Know	6	6.4
13	Managers can affect accounting income by increasing or decreasing it in unethical methods.	Don't Know	8	8.5
14	Managers can affect accounting income by increasing or decreasing it in ethical methods.	Don't Know	9	9.6
15	Accounting income is the return on the invested assets during the accounting period.	Don't Know	7	7.4
16	Accounting income is the growth on the net assets (owner equity) that is occurred during the accounting period.	Don't Know	7	7.4

Out of the 1504[15] provided answers, the sampled individuals were undecided 116 times. Approximately, 8% of the sampled individuals could not take a position toward some of the items. Figure (2) illuminates undecided responses of the sample. Arguably, while it is generally low, well-educated and segment of financial statements' users with experience are supposed to possess knowledge in an important accounting topic.

FIGURE 2
RATIO OF OVERALL DO NOT KNOW ANSWERS



DISCUSSION

Accounting income is among corporate performance measures. The IASB acknowledges that financial performance is reflected by accrual accounting (Para. 1-17, 1-18, and 1-19)[16], past cash flows (Para. 1-20)[17], and changes in economic resources and claims not resulting from financial performance (Para. 1-21)[18]. Accounting income is basically calculated on an accrual basis where management estimates are needed along with accounting professional judgment when implementing accounting standards are carried out.

Constructed accounting reality that underlies the economic reality of an enterprise is surrounded by ambiguity and cannot be certain (Al-Adeem, 2017; Alharbi & Al-Adeem, 2022; Bayou et al., 2011; Brearey and Al-Adeem 2019; Briloff, 1966; Brief, 1993b; Elkhashen & Ntim, 2018; Hines, 1988, 1991; Lee, 2006, 2009; Macintosh, 200; Mattessich, 2009; Mouck, 2004; Rudkin, 2007; Williams, 2003, 2006; White et al, 2001). Accounting measurements including income assimilate estimates and assumptions may not be true or empirically reinforced (Brief, 1993a; Brief & Owen, 1970; 1973; Horngren, 1955; Kelley, 1951; Mouck, 2004; Sterling, 1988; the American Institute of Accountants[19]). In its conceptual framework, the IASB clearly affirms that "To a large extent, financial reports are based on estimates, judgements, and models rather than exact depictions" (Para. 1.11).

The sample in this study represents generally well-educated and experienced individuals including accountants. More than half of them own stocks. The concern is that some of them lack an understanding of the nature of accounting income and the inherent subjectivity in calculating it or do not know about its limitation or use. Comprehending income by business is not a new concern related to accounting in Saudi Arabia. Decades ago, the complication of businesses led businessmen to complain about the books they kept to pay their taxes (the American Institute of Accountants)[20], which are calculated based on accounting income.

The concept of income is applicable and required for accounting inquiry (Saito & Fukui, 2016), particularly for corporations. Business income that is attributable to stakeholders in addition to shareholders makes equitable and efficient corporate accounting (Otaka, 2020). An existing need to understand the corporate model is already recognized in accounting research (Al-Adeem 2017, 2022a, 2022b, 2023).

CONCLUSIONS, IMPLICATIONS, LIMITATIONS, AND FURTHER RESEARCH

Whether users of financial statements comprehend that the nature of accounting income and methods of calculating motivates this study. Ninety-four subjects mostly well-educated and experienced participated in a web-based questionnaire to explore the understanding of users of financial statements in Saudi Arabia toward accounting income.

Respondents depend on income in making investment decisions. They understand that accounting income is associated with neither cash nor liquidity. However, the majority of them generally do not comprehend that accounting income has no empirical reference, leading some of them to indicate the possibility of proving it. Partnering with this understanding of the nature of accounting income, some reveal that different accountants can reach an exact accounting figure despite the participants' awareness of the effect of judging the implementation of financial accounting standards and management estimates on calculating accounting income.

Paradoxically, affirming that adopted accounting standards affect the calculation of accounting income and acknowledging that management estimates affect the calculation of accounting net income, still, a noteworthy number of the sample indicates that two different accountants will reach the same accounting income for a single accounting entity if they use the same accounting standards and the same management estimation.

In addition, the sampled individuals generally do not fully comprehend that accounting income is a measure of corporate performance over a period of time which permits defining it as a return on capital or invested assets in the business. They mostly demonstrate an understanding that calculating accounting income depends on professional judgment applied to the implementation of financial accounting standards and on estimates involved in the calculation. Such a nature makes accounting income manipulatable whether for ethical or unethical purposes.

A concerning finding is that some inaccurately understand aspects of the nature of accounting income or do not know about them. This is concerning because the sample includes mostly well-educated and experienced accountants.

For the efficiency of the capital market, participants need to be informed and aware of the nature of accounting income. The Capital Market Authority (CMA) should launch a campaign to educate investors and individuals about such a nature and the limitation of such a figure. Accounting departments at universities in Saudi Arabia should include and pay attention to teaching accounting theory properly.

Future research may investigate the effect of informing participants in the capital market and other individuals on their investment decision and how possessing such knowledge alternates their perceptions. Conducting experiments might be valuable and contributes to our knowledge.

This study is not without some limitations. The small sample size limits the conclusions of the study. A large sample enables utilizing sophisticated statistical techniques, specifically structural equation modeling (SEM). SEM facilitates gauging latent contracts and simultaneously tests relationships among them with the presence of a theory. Offering potential participants economic incentives, such as rewarding them for their time, may expand the sample size.

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ENDNOTES

1. Information of this speech is unavailable. The document is an item of American Institute of Certified Public Accountants (AICPA) Historical Collection that was made electronically available by eGrove at the University of Mississippi. Retrieved https://egrove.olemiss.edu/aicpa_guides/522/ (last visit 12/1/2022).
2. The American Accounting Association formed the Committee on Concepts and Standards for Externals Financial Reports and instructed it study the state of accounting theory.
3. Retrieved https://www.ifrs.org/issued-standards/list-of-standards/conceptual-framework.html/content/dam/ifrs/publications/html-standards/english/2022/issued/cf/ (last visit 11/28/2022).
4. The abbreviation SOCPA is from the old name of the organization. It used to be the Saudi Organization for Certified Public Accountants (SOCPA). The name was changed in to become what it is now.
5. Retrieved https://www.socpa.org.sa/SOCPA/files/01/01cbbdf7-31df-48a0-9f54-33a5b8fc34ce.pdf (last visit 11/29/2022).
6. For an evaluation of their adoption see Al-Adeem (2020b), and impact see Nurunnabi et al. (2022).
7. Retrieved https://www.ifrs.org/issued-standards/list-of-standards/conceptual-framework/#standard (last accessed 11/29/2022).
8. Retrieved https://www.ifrs.org/issued-standards/list-of-standards/conceptual-framework/#standard (last accessed 11/29/2022.
9. Information of this speech is unavailable. The document is an item of American Institute of Certified Public Accountants (AICPA) Historical Collection that was made electronically available by eGrove at the University of Mississippi. Retrieved https://egrove.olemiss.edu/aicpa_guides/522/ (last visit 12/1/2022).
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13. This is the total number all answers of the 94 for 15 items. Item 10 was not included because it inquires about personal belief toward the accounting income. Therefore, there is no wrong or right answer.

14. This chapter was written by Stamp, the son of professor Edward Stamp, a well known accounting scholar, who wrote in 1981 Why Accounting Cannot Be Like Physics. The chapter appeared in a book was authored to honor Professor Stamp. It was titled Philosophical Perspectives on Accounting. Essays in Honour of Edward Stamp and edited by MJ Mumford, KV Peasnell.
15. For all the 16 items.
16. See for example Para. 1-17 which states that,
"1.17. Accrual accounting depicts the effects of transactions and other events and circumstances on a reporting entity's economic resources and claims in the periods in which those effects occur, even if the resulting cash receipts and payments occur in a different period. This is important because information about a reporting entity's economic resources and claims and changes in its economic resources and claims during a period provides a better basis for assessing the entity's past and future performance than information solely about cash receipts and payments during that period."
17. Para. 1.20 states,
"Information about a reporting entity's cash flows during a period also helps users to assess the entity's ability to generate future net cash inflows and to assess management's stewardship of the entity's economic resources. That information indicates how the reporting entity obtains and spends cash, including information about its borrowing and repayment of debt, cash dividends or other cash distributions to investors, and other factors that may affect the entity's liquidity or solvency." Information about cash flows helps users understand a reporting entity's operations, evaluate its financing and investing activities, assess its liquidity or solvency and interpret other information about financial performance."
18. Para. 1.21 states,
"A reporting entity's economic resources and claims may also change for reasons other than financial performance, such as issuing debt or equity instruments. Information about this type of change is necessary to give users a complete understanding of why the reporting entity's economic resources and claims changed and the implications of those changes for its future financial performance."
19. Information of this speech is unavailable. The document is an item of American Institute of Certified Public Accountants (AICPA) Historical Collection that was made electronically available by eGrove at the University of Mississippi. Retrieved https://egrove.olemiss.edu/aicpa_guides/522/ (last visit 12/1/2022).
20. Information of this speech is unavailable. The document is an item of American Institute of Certified Public Accountants (AICPA) Historical Collection that was made electronically available by eGrove at the University of Mississippi. Retrieved https://egrove.olemiss.edu/aicpa_guides/522/ (last visit 12/1/2022).

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