An Investigation on the Impact of Sustainability Accounting on the Financial Health of Companies

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A B S T R A C T

Financial health has a significant impact on business continuity. Factors affecting financial health are crucial for all companies. Nowadays, in addition to economic factors, social and environmental factors influence the financial health of companies. Therefore, this research aims to investigate the effects of sustainability accounting components on the financial health of manufacturing companies. In terms of aim, the current research was applied. In terms of data collection, the present study was descriptive-survey. The research data was collected through a questionnaire. The population of this study included senior accountants and financial managers of Iranian manufacturing companies. Data analysis was done using structural equation modeling and with the help of SPSS version 26 and SmartPLS version 3 software. The sample size was 172 accountants. According to the research findings, four components of sustainability accounting (i.e., accounting ethics awareness, voluntary accounting proactiveness, transparency accounting mindset, and corporate social responsibility report) affected financial health significantly. On the other hand, the component of human capital disclosure had no significant impact on financial health. In today's business environment, social and environmental issues have a key role in gaining competitive advantage. Therefore, companies should disclose information about their social and environmental performance. This would able them to improve their financial health by increasing sales.

Introduction

Factors such as rapid technological advancements, insufficient cash flow, and limited natural resources, while creating problems for the profitability of companies, may cause them to be unable to fulfill their financial obligations on time (Kaakeh & Gokmenoglu, 2022). Financial challenges could jeopardize the companies' continuity (Ghaderi et al. 2021). Performance evaluation from different aspects is one of the effective ways to reduce this type of challenge. Financial distress, as a major challenge, requires continuous evaluation of the financial performance. On the other hand, financial health can reduce the concerns of managers and other stakeholders regarding the profitability and continuity of companies' activities (Du Toit & Vermaak, 2014).

Financial health indicates the financial capabilities of a company, which affects its long-term survival and growth. In addition, financial health means managing financial resources effectively, paying financial obligations on time, and establishing a balance between income and expenses (Fachrudin, 2021). In other

words, financial health is a reliable measure of a company's economic stability (Kumari, 2013). Financial health is considered as an important factor from the viewpoint of investors, creditors, and business partners of a company. Sustainability is one of the factors affecting the continuity of companies' activities (Corrales-Estrada et al. 2021). Sustainability could improve the financial health of companies (Ghaderi et al. 2021) by reducing the unfavorable effects of their activities on the economy, society, and environment (Miller, 2011). Sustainability accounting is a valuable tool that helps companies to become more sustainable (Ozili, 2022).

Sustainability accounting is the process of measuring, reporting, and improving the environmental, social, and governance aspects of companies' performance. In addition, sustainability accounting seeks to increase the profitability of companies and reduce the negative consequences of their activities simultaneously (Ozili, 2022). On the other hand, traditional accounting is mainly focused on the economic (financial) aspects of companies' performance (Gascser & Szoka, 2021). Moreover, sustainability accounting emphasizes on ethical values in performing financial activities. Because ethical values-based financial statements may increase the profitability of companies (Karimi Vahed et al. 2023).

Sustainability accounting has been influenced by the following two approaches. 1) Accountability: in recent years, companies' accountability to stakeholders has also included social and environmental aspects. Sustainability accounting can be considered an appropriate tool to achieve this goal (Ghaderi et al. 2021). In addition, this approach focuses on designing a new system that includes sustainability concepts. 2) Being practical: according to this approach, different aspects of sustainability should be considered in the company's vision (Karimi Vahed et al. 2023). Lack of attention to sustainability accounting may have many negative consequences for the companies and society. For example, WorldCom and Enron bankruptcy, the East Asian financial crisis of 1997, and the America's financial crisis of 2008 were affected by a little attention to sustainability accounting (Pothong & Ussahawanitchakit, 2011).

According to Pothong & Ussahawanitchakit (2011), sustainability accounting has five components (accounting ethics awareness, voluntary accounting proactiveness, transparency accounting mindset, human capital disclosure, and corporate social responsibility report). According to Naser Toraby et al. (2016), sustainability accounting components affect the companies' continuity. Thus, the current research assumed that each of these components could have significant effect on the financial health of manufacturing companies. The literature review revealed that financial health has been less investigated from the perspective of sustainability accounting. Therefore, this research could indicate the increasing importance of sustainability accounting components and their impact on the financial health. Furthermore, the findings of this study can help managers, investors, financial analysts, and other stakeholders make correctdecisions.

Financial Health

Financial health refers to the overall well-being of a company's financial position. Financial health includes the company's profitability, liquidity, debt levels, and cash flow (Guan et al. 2021). Assessing the issues may provide a comprehensive picture of the financial stability of a company. High financial health means having enough money to pay expenses and debts, consistent profitability, managing debts, and having valuable assets (Ghaderi et al. 2021). In addition, financial health indicates the ability of a company to generate enough return on its investment (Bunger et al. 2019). Moreover, financial health could help the potential business partners for making a business partnership work or lenders to lend money (Fachrudin, 2021). Additionally, financial health can be identify effectively potential risks and opportunities related to the company's operations (Ghaderi et al. 2021). Finally, financial health helps stakeholders to make informed decisions about their future, by understanding a company's financial position perfectly ((Du Toit & Vermaak, 2014).

The continuity of activity is the primary concern of each company. Profitability and liquidity are two main components of financial health and have a significant impact on a company's continuity (Naser Toraby et al. 2016). Nowadays, in addition to quality, cost, customer satisfaction (Razak, 2016), sustainability is also

among the factors affecting the profitability of a company (Roffé & González, 2024). Sustainability increases the profitability of companies by increasing customer loyalty and facilitating access to finance. In addition, sustainability could improve the profitability of a company by minimizing waste and optimizing the energy consumption (Ghaderi et al. 2021). A review of the research literature showed that financial health has less been studied from the sustainability perspective. Therefore, the current research aims to investigate if financial health is influenced by sustainability accounting.

Sustainability Accounting

Sustainability accounting is based on the ideas of sustainable development and claims that decisions should be based on environmental, social, and economic factors (Schaltegger, 2021). Sustainability accounting enhances the social and environmental performance of a company and manages concerns related to sustainability. Moreover, sustainability accounting may be effective in evaluating the sustainability performance and making well-informed decisions (Schaltegger et al., 2022). Sustainability accounting aims to protect the assets and protect the society's interests by considering economic, social, and environmental factors (Gil-Marín et al. 2022). As mentioned, sustainability accounting includes five components (accounting ethics awareness, voluntary accounting proactiveness, transparency accounting mindset, human capital disclosure, and corporate social responsibility report). Up to now, less research has been conducted about the effects of each of these components on financial health, the current research aims to examine this topic among Iranian manufacturing companies.

Accounting Ethics Awareness: Ethical awareness is the moral analysis of ambiguous situations. An ambiguous situation means violating ethical principles and values (Fiolleau & Kaplan, 2017). Ethical awareness is a conscious thought that guarantee whether the decisions are ethical. Furthermore, the ethical awareness is a prerequisite to act ethically (Türegün, 2018). Ethical awareness makes people consider the moral aspects of their actions. Right and ethical decisions are greatly influenced by ethical values (Okougbo et al. 2021). Corporate social responsibility is an excellent example of the ethical value that indicates responsible behavior of a company toward itself, society, and the environment (Ma et al. 2023). Ethical awareness of accountants causes to increase the trust of stakeholders and improve the reputation of companies. The trust of the stakeholders has an essential role in enhancing the market value or even increasing the continuity of a company's activity. Generally, ethical awareness of accountants has positive consequences such as excellent market value, motivational employee commitment, and outstanding stakeholder acceptance (Naser Toraby et al. 2016).

Voluntary Accounting Proactiveness: In accounting, disclosure means the timely release of information affecting the decisions of different stakeholders. Voluntary disclosure refers to the disclosure of information beyond legal compliance, which aims to provide a comprehensive picture of a company's situation (Cambell et al. 2001). Voluntary disclosure increases transparency and reduces information asymmetry. Transparency makes a company's shares to be more demand and valued (Krishnamurti et al. 2005). Agency costs are one of the negative consequences of information asymmetry and occur when investors determine the company's value is lower than its actual value due to insufficient information (Bazine & Vural, 2011). Voluntary disclosure of social and environmental actions of companies improves their financial performance (Naser Toraby et al. 2016).

Transparency Accounting Mindset: Transparency refers to observable quality and represents an environment in which stakeholders have access to the information they need and can make informed decisions (Man & Ciurea, 2016). Transparency is an essential component of accounting standards and includes features such as reliable, accurate, and complete financial reports. The transparency of the accounting mindset means the disclosure of information that affects users' decisions (Williams, 2005). In accounting, transparent information is reliable information which includes financial performance,

opportunities and threats. In addition, transparency enhances the trust of stakeholders and, as a result, creates prosperity in the companies' activities (Bushman et al. 2004).

Human Capital Disclosure: Human capital plays a vital role in the success and continuity of companies. Human capital, as an economic value, results from the experiences and skills of employees. Human capital disclosure may include features such as education, training, intelligence, skills, and health (Ghaderi et al. 2021). Human capital disclosure emphasis on retaining talents, attracting investors, and enhancing organizational effectiveness. Disclosure of human capital causes good decision-making and more responsible (Beattie & Smith, 2010). Moreover, the disclosure of human capital shows the ability of companies to recruit and retain competent employees. Employees are the most valuable and effective assets of companies, and thus are of great importance for stakeholders (Choo Huang et al. 2013).

Corporate Social Responsibility Report: Corporate social responsibility (CSR) represents the responsibility of companies towards society and the environment in which they operate. In other words, the CSR report shows the performance of companies in areas such as environment, human rights, diversity, governance, and philanthropy (Branco & Rodrigues, 2008). A CSR report helps the companies in fostering features such as trust, transparency, and reputation (Naser Toraby et al. 2016). In addition to quality and cost, customers putting importance to the social and environmental performance of companies (Khan et al. 2020). In general, the CSR report facilitates goal achievement. For example creating a corporate vision and strategy, measuring overall performance, managing potential risks, motivating employees, building stakeholders trust, complying with legislation, attracting new investors, and engaging all stakeholders (Naser Toraby et al. 2016).

Naser Toraby et al. (2016) showed that sustainability accounting affects survival and business continuity. Financial health is one of the essential components of survival and business continuity, thus, investigating those factors affecting it could be so important. Sustainability accounting is one this factors. Therefore, this research aims to investigate the effects of each of the sustainability accounting components on financial health. A review of the literature showed that little research has been done on this topic.

Based on the research literature, the conceptual model and hypotheses of the research are as follows:
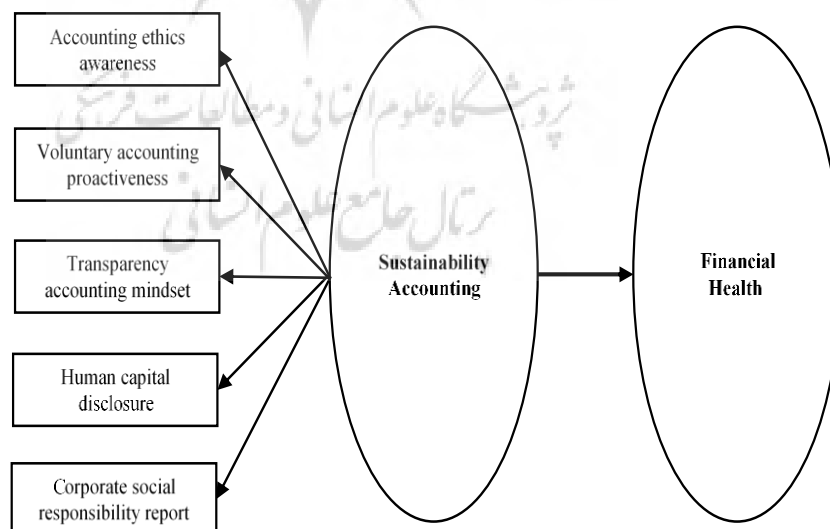

Figure 1. The Research Conceptual Model

Hypotheses

H1: Accounting ethics awareness affects the financial health

H2: Voluntary accounting proactiveness affects the financial health

H3: Transparency accounting mindset affects the financial health

H4: Human capital disclosure affects the financial health

H5: Corporate social responsibility report affects the financial health

Method

Data

This research was conducted to examine the role of sustainability accounting in improving the financial health of manufacturing companies. The current research was descriptive-analytical, done with structural equation modeling (SEM). The research data was collected via a researcher-made questionnaire and online. The questionnaire was based on a Likert scale. The choices range from strongly disagree (1) to strongly agree (5). The snowball sampling was used to collect data. The research population was senior accountants and financial managers of Iranian manufacturing companies. The research population was large and unknown. Therefore, the following formula was used to determine the sample size (Namazi & Rajabdorri, 2020).

$$n = \frac{z^2 \alpha_2 \partial^2}{\varepsilon^2} = \frac{(1.96)^2 (0.667)^2}{.1^2} = 170$$

Based on the above formula, the sample size was 170 people. AMOS 24 was used for inferential analysis using structural equation modelling.

Ethics and pilot testing

In the first part of the questionnaire (description section) were reminded that all data would be anonymised. After designing the questionnaire, a preliminary test was conducted to ensure the quality of the questionnaire and its content validity. This test was performed on 30 participants. For this purpose, participants from the research population were identified and invited to cooperate. This collaboration was done with the informed consent of the participants. The pilot testing led to minor changes in the questionnaire.

Research Methodology

A researcher-made questionnaire was used to collect data. Data collection was based on a web-based survey. The snowball sampling was used to obtain the desired sample to collect research data. In this sampling technique, existing study subjects introduce their acquaintances to researchers as new subjects for cooperation. Data collection started with a small pool of acquaintances. They were asked to participate in the survey questionnaire. In addition, they introduced other people who met the eligibility criteria. The survey link was sent to all participants via virtual networks. Responses to the questionnaires were considered as underlying data (Anand et al. 2023). A total of 181 questionnaires were completed by the participants, of which 172 were usable.

Measuring variables

In the present study, financial health was the dependent variable, and sustainability accounting was the independent variable. Sustainability accounting includes the five components of accounting ethics awareness, voluntary accounting proactiveness, transparency accounting mindset, human capital

disclosure, and corporate social responsibility report. Various sources, especially the following sources, were used to design the items. The work of Du Toit & Vermaak (2014) was used to design financial health items. The following sources were used to design the items of sustainability accounting components. This means that the items of accounting ethics awareness, voluntary accounting proactiveness, transparency accounting mindset, human capital disclosure, and corporate social responsibility report were designed from Rahmani et al. (2023), Rezaee & Tuo (2017), Klinsukhon & Ussahawanitchakit (2016), Ax & Marton (2008), and Jamali & Mirshak (2007), respectively.

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The validity of the questionnaire

No standard questionnaire was found regarding the research variables, therefore, a researcher-made questionnaire was used to collect data. Appropriateness and relevance are among the advantages of a researcher-made questionnaire. The questionnaire was designed based on Churchill's paradigm (1979). In this paradigm, the dimensions of the research variables are firstly identified, and then a set of indicators are designed based on the literature. Exploratory factor analysis (EFA) was used to categorize the identified indicators. In the EFA, two measures (i.e., Kaiser Meyer Olkin (KMO) and Bartlett's test) are used for ensuring the adequacy of the sample size. Table 1 shows that the KMO value equals 0.884. This value is more than 0.7, and therefore, the sample size is sufficient for factor analysis. Furthermore, p-value for Bartlett's test equals 0.0001. This value is less than 0.05, and thus, the results are significant.

Table 1. KMO and Bartlett's Test Kaiser-Meyer-Olkin Measure of Sampling Adequacy

KMO	Approx. Chi-Square	df	Sig.
0.873	485.415	990	0.0001

As shown in Table 5, the EFA led to the extraction of six factors. In total, these factors explain 60% of the total variance.

Table 2. Total Variance Explained

Component	Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	12.486	27.746	27.746	5.972	13.271	13.271
2	4.734	10.521	38.267	4.718	10.486	23.757
3	3.745	8.323	46.589	4.483	9.962	33.718
4	2.831	6.292	52.882	4.296	9.546	43.265
5	2.328	5.173	58.055	4.234	9.409	52.674
6	1.749	3.887	61.946	4.171	9.268	61.942

Table 2 shows the factor loading of items related to each component (variable).

Table 3. Factor loadings of the components" items

C1		C2		C3		C4		C5		C6	
Item	Ld	Item	Ld	Item	Ld	Item	Ld	Item	Ld	Item	Ld
8	0.791	17	0.825	37	0.783	27	0.777	21	0.801	39	0.769
5	0.756	15	0.805	35	0.764	25	0.761	22	0.758	43	0.761
7	0.725	16	0.799	32	0.763	31	0.756	19	0.731	42	0.740
10	0.719	12	0.781	38	0.745	28	0.718	20	0.687	45	0.730
6	0.709	11	0.762	33	0.715	30	0.716	18	0.647	41	0.695
1	0.706	14	0.761	34	0.696	29	0.713	23	0.646	40	0.693
2	0.700	13	0.760	36	0.670	26	0.644	24	0.642	44	0.662
3	0.696										
4	0.672										
9	0.617										

The factor loading of all items is above 0.6, and therefore, their reliability is in an acceptable range. The principal component analysis (PCA) and Varimax rotation was used for analyzes.

Result and analysis

Demographic details

Table 1 shows the information related to the age, gender, education, and length of service of the respondents.

Table 4. Demographic Description of the Sample (n=172)

Variable	Category	%
Gender	Male	84.9
	Female	15.1
Age	Under 30 years old	7.6
	30-40 years old	34.9
	40-50 years old	37.2
	Above 50 years old	20.3
Education	Bachelor's degree	25.0
	Master's degree	58.7
	PhD degree	16.3
Length of service	Under 5 years	8.7
	5-10 years	34.3
	10-20 years	37.8
	Above 20 years	19.2

Table 4 shows 84.9 percent of the respondents were male, and 15.1 percent were female. The education of most of the respondents (58.7 percent) was Master's degree. Moreover, length of service of most of the respondents (37.8 percent) was between 10 and 20 years. Finally, the most of the participants (37.2 percent) aged between 40 and 50 years.

Inferential statistics

Since Smart PLS software was used for data analysis, the following three steps are required. a) Testing the measurement model, b) testing the structural model, and c) testing the overall model.

Testing the measurement model

The measurement models were tested by three criteria (i.e. reliability, convergent validity, and divergent validity)

Reliability: Reliability indicates that if the questionnaire is distributed among the population at different times, the results will not have significant differences. Cronbach's alpha coefficient was used to test the reliability of the questionnaire (table 2).

Table 5. Reliability coefficient of research variables

Variable	Symbol	Number of questions	Coefficient α
Financial health	FH	10	0.927
Accounting ethics awareness	AEA	7	0.910
Voluntary accounting proactiveness	VAP	7	0.883
Transparency accounting mindset	TAM	7	0.880
Human capital disclosure	HCD	7	0.894
Corporate social responsibility report	CSR	7	0.873

As shown in table 5, Cronbach's alpha value for all variables is more than 0.70, then, the research items have good reliability.

Convergent validity: This criterion displays the degree of correlation between the questions of a variable. Average Variance Extracted (AVE) was used to calculate convergent validity. According to Fornell and Larker (1981), the value of AVE must be greater than 0.5 (table 6).

Composite reliability: This criterion is used to evaluate the internal fit of the model. The composite reliability (CR) criterion reveals the compatibility of variable questions with each other. The value of CR must be more than 0.7 (table 6).

Table 6. Composite reliability and convergent validity of research variables

Variable	AVE	CR
FH	0.609	0.939
AEA	0.655	0.930
VAP	0.600	0.913
TAM	0.581	0.906
HCD	0.609	0.916
CSR	0.576	0.905

As shown in Table 6, the value of AVE is bigger than 0.5, and the value of CR is bigger than 0.7. Furthermore the CR coefficient is bigger than the AVE coefficient. Therefore, convergent validity is established.

Divergent validity: In Smart PLS path model, divergent validity is the third criterion for evaluating the measurement models fit. This criterion demonstrates little correlation between the items of different latent constructs. The divergent validity of the variables is shown in the form of a matrix. The matrix cells contain the values of the correlation coefficients between the constructs. Moreover, the main diagonal indicates the square root of the AVE values for each construct. According to Fornell and Larker (1981), if the values of the main diagonal are bigger than the values of other cells, then divergent validity is established.

Table 7. Divergent validity test matrix

Variable	AEA	CSR	FH	HCD	TAM	VAP
AEA	0.809					
CSR	0.191	0.759				
FH	0.349	0.496	0.780			
HCD	0.144	0.215	0.399	0.781		
TAM	0.352	0.325	0.417	0.209	0.762	
VAP	0.221	0.223	0.507	0.578	0.259	0.775

Table 7 shows that the divergent validity of the research model is at an acceptable level.

Testing the structural model

After testing the measurement model, it is time to test the structural model of the research. Unlike measurement models, structural models do not include items (observed variables), but instead include latent constructs and relationships between them. To test the structural model, the coefficient of determination (R^2), the Stone-Geisser (Q^2) index, and effect size measure (f^2) were used.

The coefficient of determination (R^2): This criterion points out how much of the changes in the dependent variable are explained by the independent variables. The higher the value of R^2, the better the model fits.

The Stone-Geisser (Q^2) index: This criterion shows the predictive power of endogenous constructs. If the value of the Q^2 criterion is positive, the model has an acceptable fit and a suitable predictive power. Three values of 0.02, 0.15, and 0.35 represent small, medium, and large effects of the exogenous variable respectively (Henseler et al. 2009).

Table 8. Goodness of Fit Indicators

Variable	R^2	Q^2	SRMR
FH	0.474	0.264	0.060

For example, table 8 shows that the coefficient of determination (R^2) for financial health equals 0.474. This means that the independent variables explain 47.4 percent of the changes in this variable. Furthermore, the Stone-Geisser (Q^2) index for financial health is 0.264. This value indicates that the model has an excellent predictive power for predicting financial health.

The effect size measure (f^2): This measure reveals the direction and intensity of the relationship between two variables. According to Cohen (1988), values of 0. 02, 0.15, and 0.35 are classified as small, medium, and large effect respectively.

Table 9. The effect size measure (f^2)

Relationship		f^2
AEA	→ FH	0.036
CSR	→ FH	0.175
HCD	→ FH	0.012
TAM	→ FH	0.038
VAP	→ FH	0.111

Table 9 shows that one relationship (HCD to FH) is insignificant. Based on Cohen's classification (1988), the intensity of one relationship (CSR to FH) is large and the intensity of the other three relationships is medium.

The overall model test

In Smart PLS software, the standardized root mean square residual index (SRMR) indicates the goodness of fit of the overall model. If the value of this index is less than 0.08, then the overall model has a good fit. Since the value of the SRMR index is equal to 0.060 (table 9), the research overall model has a good fit.

The results of testing the research hypotheses

This section includes the results of testing the direct relationships between the independent variables (accounting ethics awareness, voluntary accounting proactiveness, transparency accounting mindset, human capital disclosure, and corporate social responsibility report) and the dependent variable (financial health) in the form of the first, second, and third, fourth, and fifth hypotheses.
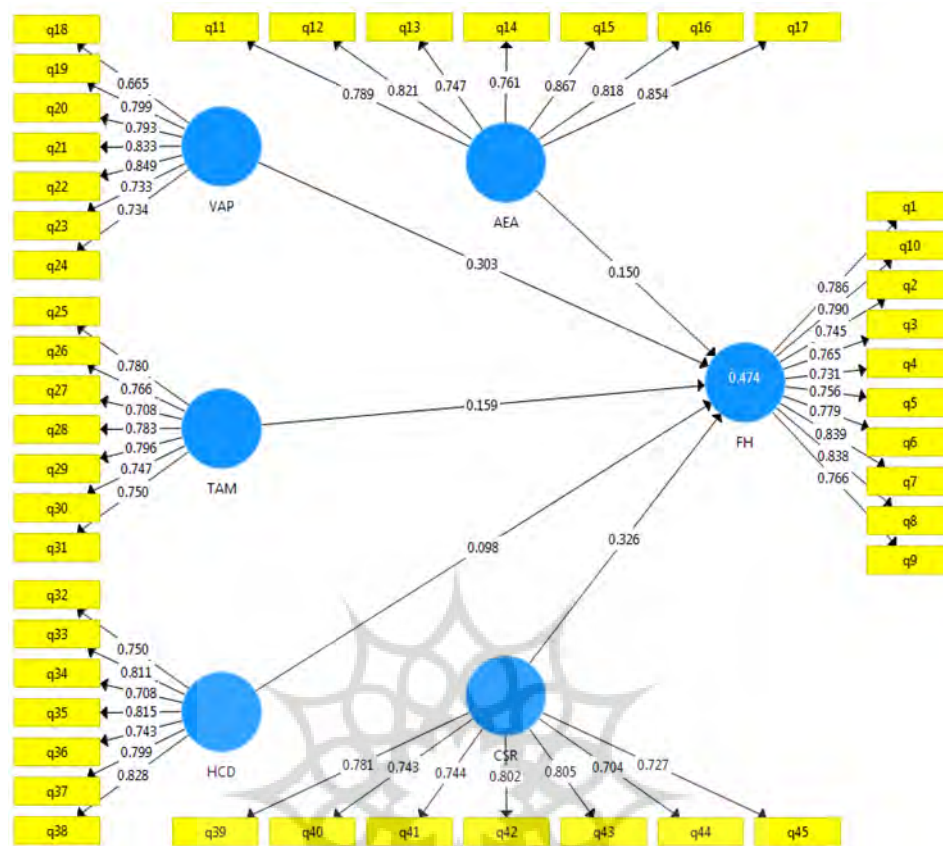
Figure 2. The results of testing the first, second, and fourth hypotheses

Table 10. Summary of the results of testing the first, second, and fourth hypotheses

Relationship		Path Coefficient	t-value	p-value	Result
AEA	→ FH	0.150	2.569	0.010	significant
VAP	→ FH	0.303	4.191	0.000	significant
TAM	→ FH	0.159	2.719	0.007	significant
HCD	→ FH	0.098	1.389	0.165	non-significant
CSR	→ FH	0.326	5.144	0.000	significant

Table 10 displays that one relationship (HCD to FH) is insignificant because the t-value of this relationship is less than 1.96. That means human capital disclosure has no significant effect on financial health. As can be seen in table 10, four other relationships (accounting ethics awareness, voluntary accounting proactiveness, transparency accounting mindset, and corporate social responsibility report) are significant, because their t-value are greater than 1.96 and the p-value is less than 0.05. Therefore, at 95% level of significance, these four variables have a significant positive effect on financial health (dependent variable). Table 10 indicates an increase of one unit in accounting ethics awareness, voluntary accounting proactiveness, transparency accounting mindset, and corporate social responsibility report respectively could cause an increase of 0.150, 0.303, 0.159, and 0.326 units in financial health. Figure 2 shows that the factor loading of all 45 items is bigger than 0.6. It means that the items of each construct can well explain that construct.

According to Figure 2, the coefficient of determination (R^2) is 0.474. This means that the independent variables explain 47.4% of the changes in the dependent variable.

Discussion

The main goal of this research were to investigate the impact of sustainability accounting components on the financial health of manufacturing companies. Manufacturing companies are the main pillar of the economic and social development of a society and, therefore, their financial health affect their success and continuity significantly. In addition, customers attach great importance to the seriousness of manufacturing companies in protecting the environment (Brundage et al. 2018). Therefore, environmental issues plays a major role in the financial health and continuity of manufacturing companies. The literature revealed little research have been done regarding the effects of sustainability accounting components on the financial health of manufacturing companies. Therefore, this study is among the first studies that investigated this issue. In the following section, the results of each hypothesis are discussed.

Accounting ethics awareness (H1): The results of testing the first hypothesis demonstrated that the ethical awareness of accountants has a significant positive effect on the financial health of manufacturing companies. The complexities of the contemporary business environment show that the ability of accountants to recognize and address ethical issues is of great importance. Therefore, accountants can effectively resolve potential problems by identifying the ethical potential implications of their actions. In addition, the ethical awareness of accountants plays a vital role in taking into account of ethical values in companies' decisions. These issues promote the stakeholders' attitude towards the company and would improve their financial health. This findings was in accordance with the findings of Pothong & Ussahawanitchakit (2011) and Naser Toraby et al. (2016).

Voluntary accounting proactiveness (H2): The findings of this hypothesis showed that voluntary accounting proactiveness has a significant positive effect on the financial health of manufacturing companies. Manufacturing companies are one of the factors harming the environment. Nowadays, citizens attach great importance to the environment and, therefore, manufacturing companies must make serious efforts to reduce the negative effects of their activities on the environment (Meiryani et al. 2023). Manufacturing companies can build a positive image of themselves among people, especially their customers, through voluntary disclosure of their environmentally friendly actions. This will increase sales and, as a result, improve their financial health and business continuity. The current results are consistent with the results from Pothong & Ussahawanitchakit (2011) and Ghaderi et al. (2021).

Transparency accounting mindset (H3): The results suggested that a transparency accounting mindset has a significant positive effect on the financial health of manufacturing companies. The accountants' mindset includes analytical skills, carefulness, and ethical firmness. In addition, transparency could be considered as one of the examples of the mindset of accountants and includes values such as openness, honesty, clarity, and collaboration. Transparency requires that accountants adhere to accounting standards, pay special attention to internal controls, promote an ethical corporate culture, and report relevant information. By increasing the transparency of financial statements, it can be stated that the insight of various stakeholders would improve regarding the financial health and integrity of companies (Stein et al. 2017). Therefore, the accountants' mindset would have a significant effect on improving the financial health of companies. The present results confirm the previous studies [e.g., Pothong & Ussahawanitchakit (2011) and Ghaderi et al. (2021)].

Human capital disclosure (H4): According to the findings, human capital disclosure has no significant effect on the financial health of manufacturing companies. Human resources are the largest and most expensive asset of an organization. Therefore, the disclosure of human resources information may help various stakeholders (including employees, customers, investors, and regulators) to make an informed decision. One of the reasons for disconfirming this hypothesis is that the studied companies may not pay special attention to human resources and, thus, do not feel obligated to disclose human resources information. This is despite the fact that the studied companies need efficient human resources and the

relevant information disclosure to succeed and have financial health. This finding was inconsistent with the finding of Pothong & Ussahawanitchakit (2011).

Corporate social responsibility report (H5): The findings of this hypothesis highlighted that corporate social responsibility (CSR) report has a significant positive effect on the financial health of manufacturing companies. Nowadays, engaging in CSR is essential to the success and continuity of a company. This means that companies should operate in ways that enhance rather than degrade society and the environment. The CSR could improve the company's brand and sales. More sales would improve the financial health of the companies. Moreover, engaging companies in CSR initiatives could encourage the employees to remain in the company. This reduces the disgruntlement and turnover of employees and the costs of recruiting new employees. This result was in agreement with the findings of Wang et al. (2016) and Balugani et al. (2020).

Based on the findings of this research, policymakers and capital markets should oblige companies to disclose information about their social and environmental performance. This helps various stakeholders to make informed decisions. In addition, managers are recommended should establish a sustainable accounting system in their companies. This will increase sales by improving customer attitudes. Moreover, participation in social and environmental activities enhances the motivation of employees and as a result increases the productivity and profitability. Finally, the findings of this research would create a new path forward for researchers and those interested in the environment.

Since the sample size of this study was 172 people, a larger sample size (more than 384) may lead to more comprehensive observations and more robust statistical tests than this research. It is also suggested that future studies examine the effects of corporate governance mechanisms and financial reporting quality on health financial. Furthermore, the research variables were assessed using self-reported measures, then, it should be cautioned when generalizing findings to other sectors (i.e., merchandising and services).

In this study, we examined the effect of the components of sustainability accounting (accounting ethics awareness, voluntary accounting proactiveness, transparency accounting mindset, human capital disclosure, and corporate social responsibility report) on the financial health of manufacturing companies. It was found that except human resource disclosure, other components affect financial health. Based on the research findings, it can be concluded that sustainability accounting could promote the financial health of companies by improving the company's brand and increasing employee loyalty.

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