Available online at www.ijournalse.org

Emerging Science Journal

(ISSN: 2610-9182)

Vol. 8, No. 2, April, 2024

The Effect of Felt Accountability on User Satisfaction with Accounting Information

Dang Anh Tuan [1*]

[1] *Industrial University of Ho Chi Minh City, Ho Chi Minh City, Vietnam.*

Abstract

Felt accountability affects an account-givers' behavior, decisions, and organizational performance. Accounting information (AI) is provided for decision-making and accountability in the public sector. This study investigated the effects of felt accountability on expertise, legitimacy, and AI disclosure level for accountability on users' satisfaction. Survey data included 401 responses across public institutions in Vietnam, and SEM linear structure analysis was used to examine the results. The research findings indicate that felt accountability directly affects users' satisfaction and their expertise and legitimacy, and the level of AI disclosure. The expertise and legitimacy of the account-holder and the level of AI disclosure partially mediate the relationship between felt accountability and users' satisfaction. This implies that AI's needs, purposes, and importance are determined based on hypothetical users that are not useful in reality. In practice, AI must meet accountability requirements to bring satisfaction to users. The satisfaction level of actual users of AI is influenced by the account-givers' perceived accountability regarding the needs, expertise, and legitimacy of the account-holder. Therefore, it is essential to identify the type of information needed, the timing of AI disclosure, and the actual AI users to reduce the gap between the supply and demand of AI. The research results provide evidence supporting agency and social contingency theories in accountability relationships.

Keywords:
Felt Accountability;
Transparency;
Accounting; Agency Theory;
Information;
Legitimacy.

Article History:

Received:	27	December	2023
Revised:	19	March	2024
Accepted:	23	March	2024
Published:	01	April	2024

1- Introduction

Accountability and transparency are two core, albeit distinct, principles of sound governance in the public sector. According to Lourenço et al. [1], transparency relates to the availability of information and is often seen as a means of achieving accountability. Thus, public institutions' disclosures of financial and budgetary information allow the public to evaluate the effectiveness of the management and use of public resources and prevent corruption and waste [2]. However, accounting information (AI) in the public sector is mainly provided for users and assumed needs [3]. Dillard & Vinnari [4] explain that satisfying the accountability needs of account holders relies on hypothetical users to hold someone responsible but does not reduce information asymmetry. The designed accounting system needs to satisfy actual usage needs instead of assumptions.

Ouda & Klischewski [5] stated that the government has made radical reforms in the public management system to create an accounting system that can provide more information. However, they often forget how to promote the use of AI. This may be because most existing studies have focused primarily on users' "demand" [6] for information for a specific purpose without considering the "supply", which is the provision of AI. The primary advantage of focusing on both the supply and demand sides is that it helps in understanding the difference between providing and using information [7], and reducing this difference can contribute to increased transparency and accountability in the public sector.

* **CONTACT**: danganhtuan@iuh.edu.vn; anhtuancpa@gmail.com

DOI: http://dx.doi.org/10.28991/ESJ-2024-08-02-023

© 2024 by the authors. Licensee ESJ, Italy. This is an open access article under the terms and conditions of the Creative Commons Attribution (CC-BY) license (https://creativecommons.org/licenses/by/4.0/).

From the point of view of Ouda & Klischewski [5], AI provided for accounting purposes is only valuable when users of that information (i) evaluate the accountability of the account-givers and (ii) use it to satisfy their needs, for example, political issues. Therefore, more is needed for the accountable actor to understand the needs of the users of the information to ensure that the information is valuable. Accordingly, AI providers must understand the real needs of user groups for different purposes. However, pursuing this goal is hardly feasible in practice. Hence, Overman et al. [8] suggest that the account-givers need to anticipate the expertise and legitimacy of the account-holders in the organizational context. Recognizing the actual needs, expertise, and legitimacy of actual AI users (account-holders) will increase the information's usefulness and thus satisfy them.

Some empirical studies on the relationship between accountability, decision-making quality, individual behavior, and organizational performance. Research results confirm that people with accountability obligations invest more effort [9] and spend more time thinking more thoroughly and carefully [10] to make decisions compared to those who do not face accountability pressure. Accountability has a significant impact on the quality of individual decisions by (i) improving the quality of information processing and (ii) stimulating effort in decision-making. Dillard & Vinnari [4] suggest that accountability is restricted by the information disclosed, which, in turn, is limited by the current accounting system. Therefore, the belief that increasing transparency through greater disclosure of AI will lead to greater accountability is only partially accurate. This is because there is always a gap between the expectations of the providers and the information users [11]. Furthermore, there still needs to be a foundational theory that can help explain the relationship between accountability and AI. This raises the question of whether accounting-based accountability needs to satisfy all the different accountability requirements to meet users' expectations.

Although there have been several independent studies on accountability and research in the accounting field. Only a few published studies focus on explaining the purpose of designing accounting conceptual models in the public sector by using public-sector AI. For instance, van Helden & Reichard [12] have researched this area. As far as the author is aware, there have yet to be any experimental studies on the impact of felt accountability on the level of satisfaction in using AI in the public sector. On the other hand, the increase in value of AI, but users still not use it as much as expected, has not been thoroughly explained by researchers based on empirical evidence [13, 14] or due to a mismatch between the supply and demand of AI [5]. Therefore, further research is required to bridge the theoretical gap in the relationship between felt accountability and AI in the public sector.

This study, for the first time, surveys actual AI users' needs, perceived expertise, and legitimacy, contributing to minimize differences and increase the usefulness of AI from the user's perspective—also known as the measure of AI users' satisfaction. Public sector accountability is more complex to implement and control. Hence, information usefulness theory must be enriched by insights from other social sciences. In addition, the research literature is scarce on this topic, especially studies on providing AI for accountability purposes in the context of public organizations.

The research results contribute theoretically: (i) it is evident that felt accountability directly impacts the satisfaction of AI users for accountability and indirectly affects it through the perception of expertise, legitimacy, and request to provide accountability information of account-holders; (ii) there is no meeting between supply and demand on the usefulness and relevance of AI; and (iii) the impact of felt accountability on the AI users satisfaction is higher than that of the account-holders's needs, expertise, and legitimacy. More importantly, this study provides empirical data demonstrating the need to add a sense of accountability to anticipate the expertise and legitimacy of the account-holder to provide appropriate, timely, and easy-to-use information to actors within the account-holders. Only then will AI have the potential to be used for accountability purposes in the public sector. The research results provide evidence for the appropriateness of agency and social contingency theories in the context of accountability relationships.

2- Accounting Information for Accountability in the Public Sector

2-1- Conceptual Framework

Accountability stems from the belief that the public has the right to know and access adequate and appropriate information [15]. According to Ouda [16], "Governments have a responsibility to increase the publicity and transparency of financial and budgetary information, promote monitoring of public expenditure, and prevent corruption and waste".

General purpose financial reporting (GPFR) is the most important means of making financial and budgetary information available to the public, as it helps governments improve accountability and transparency. However, GPFR has been considered insufficient to achieve the goal of accountability [15]. Over time, along with changes in public governance, the public needs non-financial information to assess management responsibility [17].

The financial statements conceptual framework in the International Public Sector Accounting Standards (IPSAS) specifies a twofold purpose for providing information on GPFR—decision-making and accountability, with the latter including further categories, such as: (i) results of operations; (ii) future financial and non-financial information; (iii) explanation; and (iv) information on compliance with laws and regulations affecting the management of resources of the entity. According to Ouda [16], this also implies that information on GPFR for accountability must be understandable

and usable to users. As a result, some scholars have called for the expansion of reporting in public organizations to meet the need for accountability, such as through performance reporting [18], reporting sustainability, integrated reporting, and dissemination [17, 19, 20]. Along with this, the shift from cash-based accounting to accrual-based accounting is recommended, which will provide more helpful information for users' accountability and decision-making. Ouda [16] stated that although accrual-based information is recognized as necessary, accounting principles and standards may introduce limitations in public sector accountability performance, as some specific activities and aspects also require reporting, such as grants, transfers, taxes, and public property, for which market-based measurement and recognition criteria are inadequate, often leading to arbitrary estimates. Similarly, Manes-Rossi [21] argued that using information to meet the increasing need for accountability has other issues besides those associated with a traditional budget and financial information.

According to Dillard & Vinnari [4], a relationship exists between accountability and AI. They argue that accounting systems should be designed to cater to the needs of specific accountability models. This approach, known as accountability-based accounting, seeks to provide more information to users who require AI for various purposes. Thus, the accounting concept framework based on this perspective tries to answer the question, "What kind of accounting system is required to meet the needs of a particular accountability system and satisfy its users?".

The public sector's AI is utilized by various social groups, including taxpayers, service providers, beneficiaries, and inspection and supervision agencies. Due to each group's different expectations, legitimacy, and professional capabilities, those who present the AI must adjust it accordingly. Therefore, AI for accountability purposes should be tailored to meet the needs, legitimacy, and expertise of each group of information users. This idea is based on Lerner & Tetlock's [22] concept and Overman et al.'s [8] application in social psychology.

Various studies (e.g., Parry & Hughes [23]; Lüder [24]) have indicated that politicians neither appreciate nor use accrual AI. van Helden [14] found that low levels of AI usage were found in studies conducted at the central government level in the UK [25]; at the state [26] and federal levels [27] in the US; in the central government of Estonia [28]; and in the local authorities of Germany and Italy [29].

Thus, the question is whether awareness, interest, or level of use will determine the provision of AI for accountability purposes. Answer this, Ouda & Klischewski [5] investigated the perception and behavior of the producers of AI as well as that of the users. The authors based their research on several theories, including cognitive fit theory, social cognitive theory, and the information usefulness theory to build a model that provides useful AI to users. The authors approached their research from a cognitive perspective. The resulting model for providing useful information consists of five steps, as shown in Figure 1.

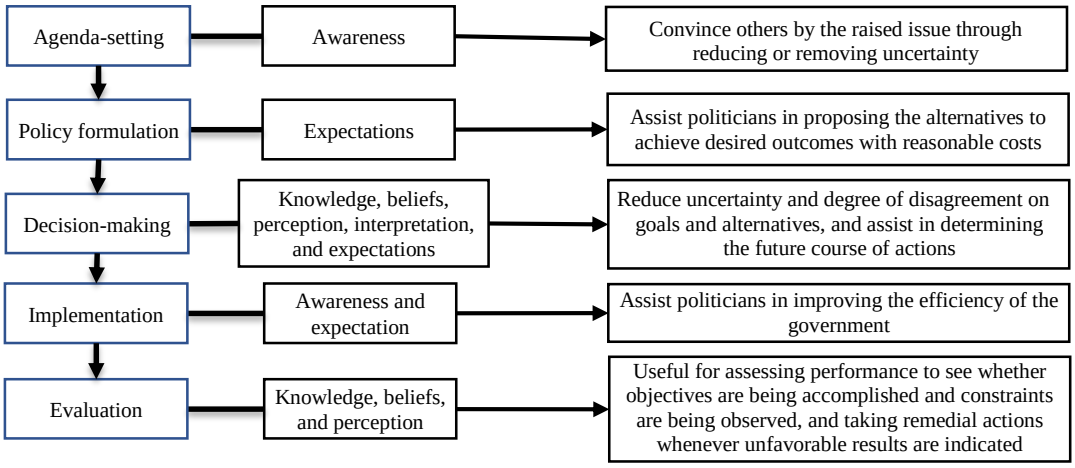

Figure 1. Impact of matching cognition aspects on the production and usefulness of AI

The five steps of the decision-making process associated with using and providing useful information include: "(i) The need to solve the problem from the producer's perceptive and provide information to the user: In this phase, usage information convinces various users to eliminate or minimize uncertainty; (ii) provide valuable information for policy formulation, i.e., information that helps identify the most likely options; (iii) provide documented decision-making as reducing uncertainty, disagreement, predictability; (iv) provide information to help improve operational efficiency; and (v) information to help measure and evaluate the results, highlighting shortcomings and limitations".

In this study, the parties in the accountability relationship are producers of AI (account-givers or agent) and users of AI (account-holder or principal).

2-2- Research Model and Hypothesis Development

Research Model: Accountability in the public sector is seen as a means to ensure transparency and integrity in the public sector. Accordingly, the ensuring function of accountability is to prevent agents from abusing the power entrusted to them [30]. Thereby creating trust between the parties through institutionalizing this relationship. Barberis [31] summarized previous related studies and pointed out five core points of accountability formed by answering five issues: (i) who is responsible; (ii) responsible for what; (iii) explain to whom; (iv) through what mechanism and (v) what are the outcomes of accountability. According to Overman et al. [8], accountability includes two characteristics: (1) perceived legitimacy and (2) perceived expertise of the principal and is measured through two scales: the "prediction" and "cognition" ability of the agent. Accordingly, the account-givers must be adequately aware of its obligation to explain how to perform it, to whom, and how. Only then will AI meet users' satisfaction.

The proposed research model is based on the Ouda & Klischewski's [5] discoveries of the differences in providing useful information for accountability purposes that meet users' needs, and Overman et al. [8]'s perceived legitimacy and expertise of the principal. They argued that it is necessary to determine what useful information the user needs based on the decision-making process. Hence, for each specific period, providers of AI need to predict users' needs to provide useful information. However, these discoveries are yet to be backed by empirical research. This study tests the usefulness of information for accountability purposes as indicated by the research results of Ouda & Klischewski [5], with the fifth step as the dependent variable. The proposed model is shown in Figure 2.

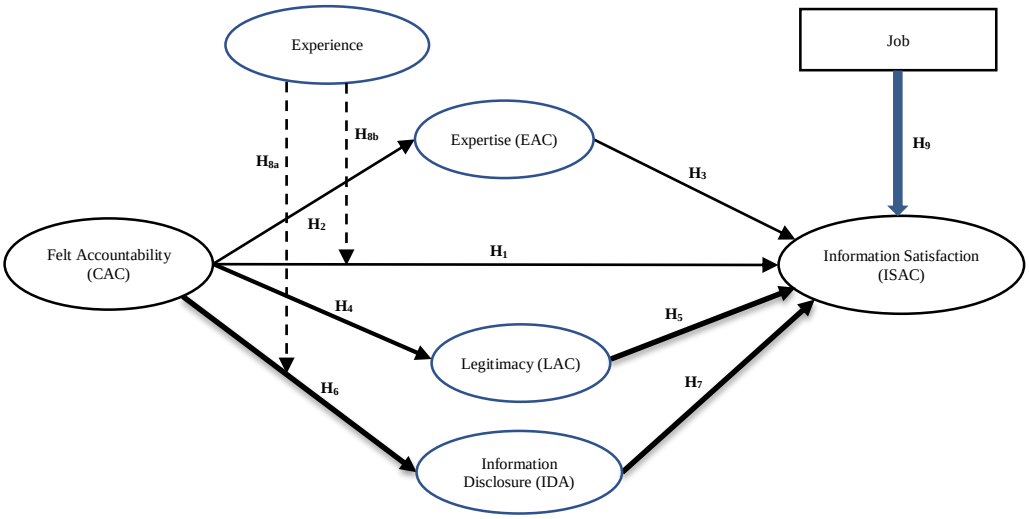

Figure 2. Proposed research model

Research Hypothesis: A review of recent research by Van Helden & Reichard [12] on the need for and usability of AI in the public sector shows a picture of different user groups and preferences for AI. The research results support the argument that politicians, citizens, and the media have roughly the same concerns about AI issues. However, not all users may be equally satisfied with AI provided on an accrual basis [32]. Therefore, the focus is on the needs of the primary users. This focus has oriented important general goals and principles in building accounting concept framework. The fact that information providers can perceive what information is useful to users plays an important role in reducing the differences between the two parties in the accountability relationship. The experimental study by Hochwarter et al. [33] provided measures to gauge accountability requirements that affect the performance of accountability by the agent.

According to Ouda [16], "previous accounting studies were based on reasonability and objectivity without considering the act of 'producing and using AI' as an act of human and social, whereby individual and organizational psychological aspects also influence the provision and use of AI". Therefore, incorporating human behavior into traditional accounting models and theories enhances the ability to explain and predict the behavior of producers and users. Overman et al. [8] argued that accountability mechanisms are influenced by the actor's conjectures about the principal's expectations, which influence felt accountability requirements [34] and "actor's behavior and decisions" [8] in several ways. However, measuring the perceived influence of actors requires more than simply measuring the need for AI [8], since the usefulness of the information is dependent on the legitimacy and expertise of users of the information.

According to several studies, despite the increasing value of AI, politicians are not using it as much as they could [13]. van Helden [14] concluded that although politicians may appreciate or recognize the value of a particular type of AI, it does not necessarily lead to its adoption. In fact, politicians' perception of the usefulness of AI is much higher than their actual use of it. It is unclear whether this is due to the relevance of AI not meeting the users' decision-making needs or due to the users' lack of knowledge [5].

On the other hand, some studies show that, despite the increasing usefulness of AI, politicians' use of AI remains low [7, 35]. van Helden [14] deduced that the appreciation or use of a certain type of AI by politicians does not automatically lead to its use, and politicians' appreciation or perception of the usefulness of AI is much higher than their actual use. Whether this is due to the relevance of AI not meeting users' needs (decision-making process) or due to users' lack of knowledge [5].

After analyzing the discussion, it is clear that the needs, purposes, and importance of AI are determined based on hypothetical users that are not useful in reality. In practice, AI must meet accountability requirements to bring satisfaction to users. The satisfaction level of actual AI users is influenced by the account-givers' perceived accountability regarding the needs, legitimacy, and expertise of the account-holder. To meet the requirements better, it is important to correctly identify the needed information, the type of information, the timing of AI disclosure, and the ability of account-holder to use the information. This helps to reduce the gap between the supply and demand of AI. Therefore, the study proposes a hypothesis to explore the influence of perceived accountability on perceptions of need, legitimacy, expertise, and level of information disclosure, thereby affecting the satisfaction level of users of AI (Table 1).

Table 1. Research hypotheses and expectations

Hypotheses	Expectations	Result
H1: Agents' perceptions of the demands of users of AI for accountability are positively related to users' satisfaction.	(+)	van Helden & Reichard [12]
H2: Account-givers' perceptions of information needs are positively related to AI users' expertise.	(+)	Overman et al. [8]; Hochwarter et al. [33]; Frink & Klimoski [34].
H3: Account-givers' perceptions of the expertise of AI users for accountability in public organizations are positively related to users' satisfaction.	(+)	Overman et al. [8]; Dillard & Vinnari [4]; Hochwarter et al. [33]; Frink & Klimoski [34]; Cohen et al. [20].
H4: Account-givers' perceptions of the need for information are positively related to users' perceptions of the legitimacy of using AI.	(+)	Overman et al. [8]; Dillard & Vinnari [4]; Hochwarter et al. [33]; Frink & Klimoski [34].
H5: Account-givers' perceptions of the legitimacy of users of AI for accountability in public organizations are positively related to users' satisfaction.	(+)	Overman et al. [8]; Dillard & Vinnari [4]; Hochwarter et al. [33]; Frink & Klimoski [34].
H6: Felt accountability of account-givers about perceived AI needs is positively related to the suitability of information provided to users.	(+)	van Helden & Reichard [12]; Frink & Klimoski [34]; Cohen et al. [20].
H7: AI in public organizations for accountability purposes positively relates to users' satisfaction.	(+)	van Helden & Reichard [12]

3- Methodological Approach

The quantitative research process was designed with the following steps:

Step 1. Determine the research model based on the review of related previous studies.

Ouda [16] defined the model that proposes that the dependent variable is the satisfaction of users of AI as follows: "AI is useful for assessing the performance to see whether objectives are being accomplished and constraints are being observed and taking remedial actions whenever unfavorable results are indicated". Furthermore, the account-givers under the above requirements warrants that provision of information that is required for evaluation and monitoring of the results of decisions made.

From these two proposals, this study develops ten scales to measure the level of users satisfaction related to providing and using information, defined as the level of information satisfaction provided (IASC). There are four independent variables in the model, namely, felt accountability (CAC), perceived expertise (EAC), perceived legitimacy (LAC), and AI disclosures (IDA) provided for accountability purposes. The independent variable (CAC) includes eight scales inherited from Hochwarter et al. [36], EAC includes four scales, LAC includes four scales inherited from Overman et al. [8], and IDA consists of eight scales inherited from Mack & Ryan [37].

Step 2. Design the survey questionnaire.

The survey questionnaire consisted of 34 questions using a five-point Likert scale. Before the official survey, the questionnaire was sent to five people to determine clarity, understanding, and ability to answer.

Step 3. Select a sample and collect data.

The research employed SEM structural model analysis. The minimum sample size must be ten times the maximum number of paths affecting a concept in the model [38]. The proposed research model in Figure 3 has the largest number of observed variables, at ten, and the largest paths, at four. Therefore, the minimum sample size should be 100. As of

2022, the website of the General Statistics Office of Vietnam had 84,800 public entities listed. Due to the large sample population, we chose the stratified sampling method. The proportion of each public organization is as follows: (i) public non-business accounted for 61%, (ii) state management agencies accounted for 31%, and (iii) other organizations accounted for 8%. The study conducted a survey of the accountants, managers, auditors, and others of public organizations by sending a questionnaire designed on Google Docs directly to 535 persons between July 2022 and October 2022. We received 432 responses, yielding a response rate of 81%. After removing the missing votes, there were 408 valid responses. Of these, seven only expressed one point-of-view (score 1) and were eliminated. Thus, the remaining data comprised 401 votes.

Step 4. Data processing.

To test the reliability and validity of the scale, the study conducted a test of Cronbach's alpha coefficient with outer loadings on the SmartPLS 4.0.8.5 software. Next, the study evaluated the outcome measurement model and the linear structural model SEM to test the appropriateness of the model and its hypotheses according to Hair et al. [38].

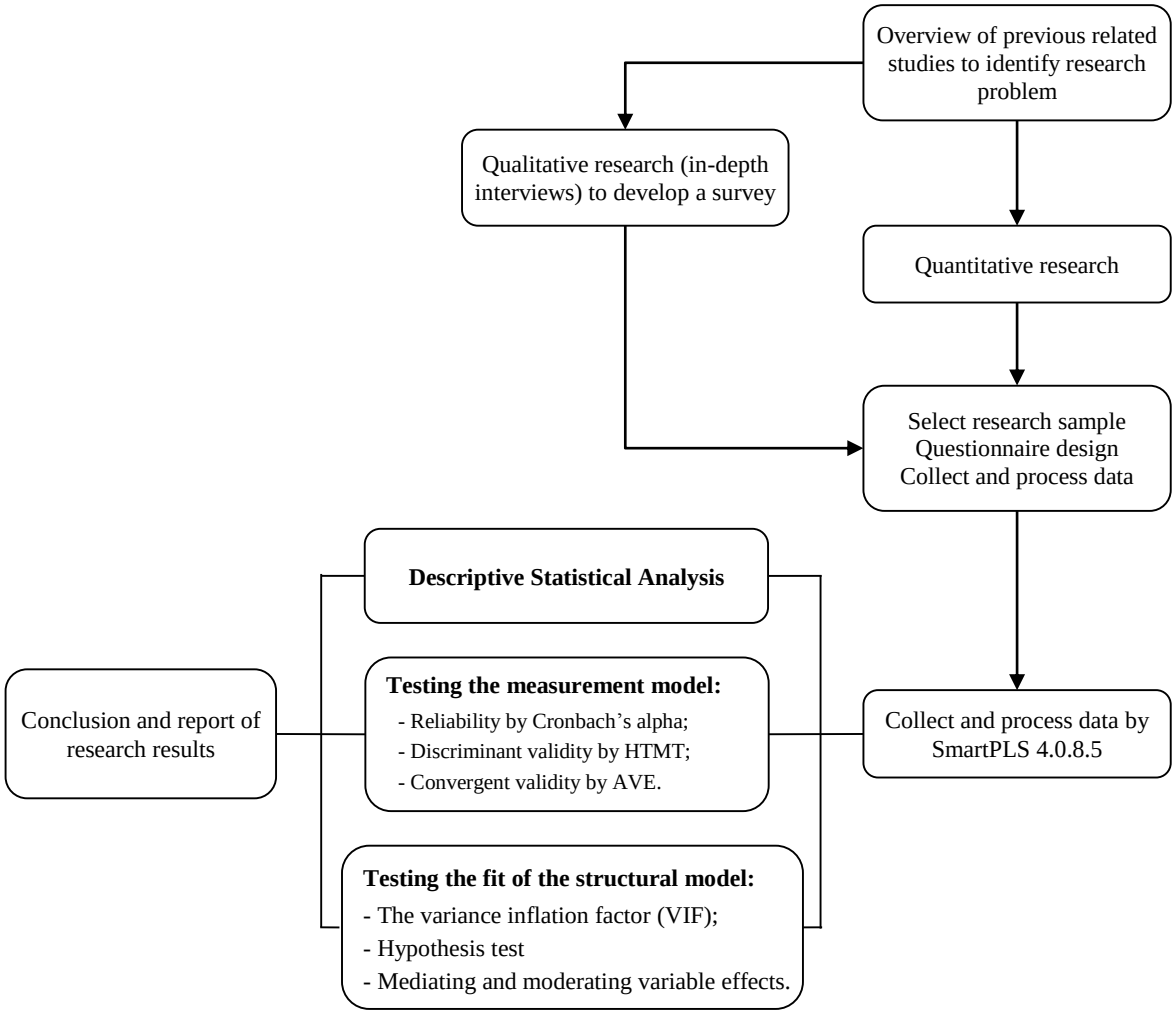

Figure 3. Research process

4- Research Results

4-1- Descriptive Statistics

As shown in Figure 4, of the total of 401 valid questionnaires, public service providers accounted for 54%, state management agencies accounted for 37%, and other organizations accounted for 9%—approximately the same rate that we intended during sample selection. Accountants constituted 38%, followed by managers (29%), auditors or inspectors (17%), and other positions (16%). People with 10 or more years of experience accounted for the highest proportion (56%), followed by people with 5–10 years of experience (23%), 3–5 years (11%), and less than 3 years (10%).

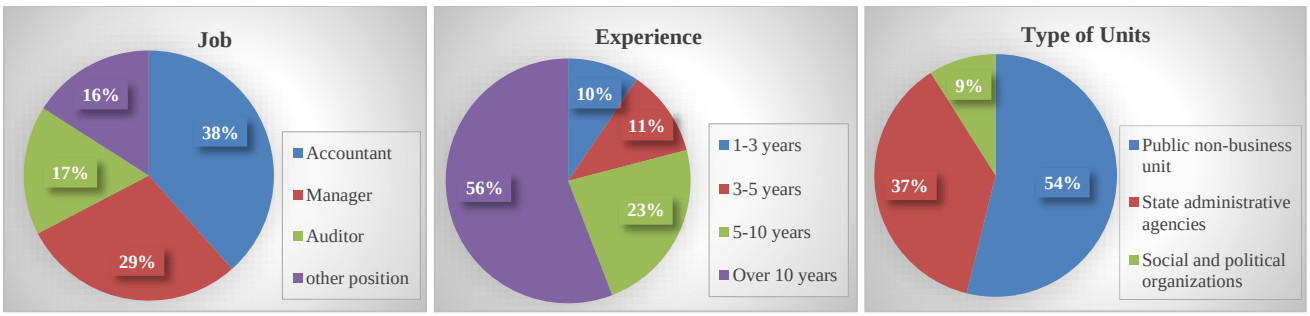

Figure 4. **Demographic characteristics of survey subjects**

4-2- Testing the Measurement Model

Reliability is measured through Cronbach's alpha coefficient and composite reliability. The first test result of the CAC5 scale is 0.697<0.7. After removing this scale and analyzing it a second time, we observed an increase in average variance extracted (AVE) value. Thus, we proceeded to remove the scale. Then, we conducted the second test. The results of the measurement model testing, as shown in Table 2, indicated that Cronbach's alpha values and combined reliability were above the threshold of 0.7 [39]. The AVE for each structure was greater than 0.5, consistent with the convergence of each structure in the model [40]. To test for discriminant validity, we use the Fornell-Larcker criterion and Heterotrait–Montrait (HTMT) test to evaluate variables in the research model. The HTMT index of less than 1.0 meets the discriminant value according to Garson [41].

Table 2. **Reliability, Convergent validity, and Discriminant validity**

	CA	CR	AVE	CAC	EAC	IDA	ISAC	LAC	Experience x CAC
CAC	0.875	0.903	0.571						
EAC	0.835	0.890	0.670	*0.798*					
IDA	0.910	0.927	0.615	*0.761*	*0.781*				
ISAC	0.944	0.952	0.665	*0.862*	*0.803*	*0.745*			
LAC	0.887	0.922	0.747	*0.827*	*0.950*	*0.793*	*0.811*		
Experience x CAC				*0.244*	*0.157*	*0.251*	*0.205*	*0.172*	

Notes: CA: Cronbach's alpha coefficient; CR: Composite reliability; AVE: Average variance extracted; HTMT ratio are shown in italic.

The analysis results indicate that the scales used in the study achieved reliability, convergent validity, and discriminant validity. Therefore, these scales are used analytically in the structural model.

4-3- Testing the Fit of the Structural Model

The variance inflation factor (VIF) was used to assess whether the structural model's independent variables are correlated. Multicollinearity can occur when VIF is greater than 5.0 [38]. The results in Table 3 show that all VIF values are less than 5.0, indicating that multicollinearity does not occur among all indicators of the four measurement models.

Table 3. **Results of the hypothesis test**

Hypotheses		R2_ad	VIF	F	β	P	Results
Model 1							
H_1	CAC → ISAC		2.560	0.276	0.454	0.000	Supported
H_3	EAC → ISAC	70.3%	3.307	0.027	0.160	0.051	Supported
H_5	LAC → ISAC		3.926	0.030	0.184	0.010	Supported
H_7	IDA → ISAC		2.432	0.029	0.143	0.018	Supported
Model 2		46.8%					
H_2	CAC → EAC		1.000	0.884	0.685	0.000	Supported
Model 3		53.8%					
H_4	CAC → LAC		1.000	1.168	0.734	0.000	Supported
Model 4		47.7%					
H_6	CAC → IDA		1.069	0.800	0.666	0.000	Supported

Moderating						
H_{8a}	Experience x CAC → IDA	1.089	0.014	-0.072	0.038	Supported
	Experience → IDA	1.059	0.000	0.004	0.913	
Moderating						
H_{8b}	Experience x CAC → ISAC	1.114	0.000	-0.003	0.909	Not Supported
	Experience → ISAC	1.063	0.001	0.013	0.626	
Control varialble						
H_9	Job → ISAC			0.039	0.146	Not Supported

Table 3 shows the results of testing the research hypotheses using the SEM structural model, including the influence of the moderator and the control variable. All hypotheses were supported statistically with a p-value<0.05. Except for hypothesis H8b and the effect of the control variable (Job), there is no statistically significant effect due to p-value>0.1. In addition, Table 3 and Figure 5 show that the coefficient of influence of felt accountability on the AI users' satisfaction is 0.454. Meanwhile, perceived expertise, legitimacy, and level of providing AI for the satisfaction of information users are 0.160, 0.184, and 0.143, all with statistically significant p-values. Users of AI for accountability purposes expect the account-givers to understand and meet their requirements. It is more critical to provide reports based on understanding users' requirements of the information than to provide reports simply because this is the obligation of the actor. This implies that the solution to strengthen the control and enforce the sanctions of the principal against the agent is only a final settlement mechanism. Neither side wants this to happen, as it could destroy the accountability relationship. Occupational position indicates who is the account-givers and who is the account-holders. The accountability relationship in the public sector is complex. Vertically, subordinates are accountable to superiors, but horizontally, public institutions are accountable to the public. This responsibility is especially emphasized in democratic societies. Therefore, we examine whether occupation position alters satisfaction with AI for accountability purposes. In other words, the difference in occupation affects the satisfaction of using AI. Table 3 and Figure 5 show that the difference between the means is not statistically significant, as the p-value is 0.146. Therefore, hypothesis H9 is rejected.

Table 3 shows that the adjusted R2 coefficient of the principal's satisfaction is 70.3%, indicating that a substantial level explains the model. The adjusted R2 coefficients of expertise, legitimacy, and providing AI are 46.8%, 53.8%, and 47.7%, respectively, indicating that the model is moderately explained [42].

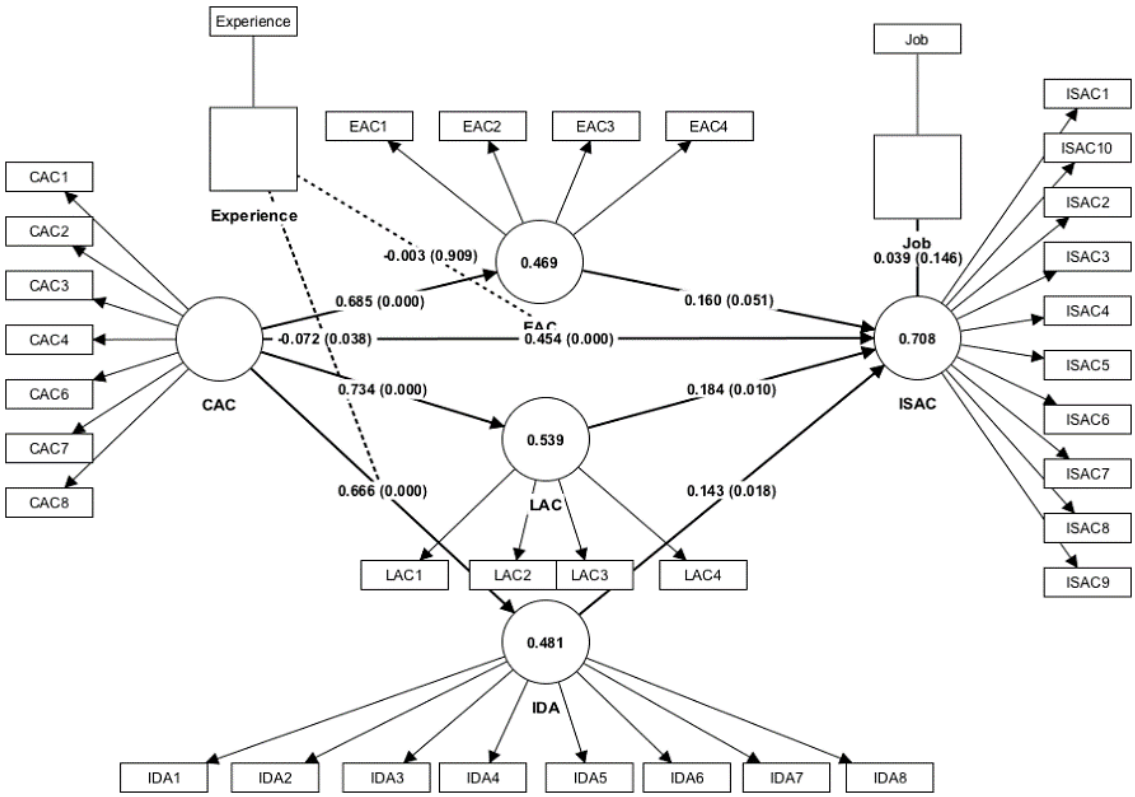

Figure 5. Accounting information users' satisfaction model

To add statistical evidence to clarify the complex accountability relationships in the public sector, we analyze the role of mediating variables, including the perception of expertise, legitimacy, and degree of providing accountability

information. The analysis results in Table 4 show a statistically significant indirect effect on hypotheses that have a partial mediating role on all three variables (as the path coefficient has a statistically significant direct influence, as shown in Table 4).

Table 4. Mediating Variable Effects

Hypotheses	Relationships	Direct effects	Indirect effects	Total effects	Mediation	Results
H_{10a}	CAC→EAC→ISAC	0.454***	0.110*		Partial	Supported
H_{10b}	CAC→LAC→ISAC	0.454***	0.135**	0.794***	Partial	Supported
H_{10c}	CAC→IDA→ISAC	0.454***	0.095**		Partial	Supported

**** P-value<0.1; ** P-value<0.05; *** P-value<0.01***

4-4- Discussion

For hypothesis H1, the analysis results (Table 3 and Figure 5) show that the felt accountability of the agent has a positive impact on the satisfaction of the account-holders. This result is consistent with Hochwarter et al.' [36] finding that anticipating what needs to be explained has a positive impact on the quality of decision making and organizational output. In this study, the provided AI affects users' satisfaction and is useful and relevant to the user's requirements during each period. Therefore, the agent meets the principal's information needs, which determines the information users' satisfaction. This result is consistent with the research results of Mack & Ryan [37].

For hypotheses H3 and H5, the research results show that the perceived expertise and legitimacy of account-holders positively impact the satisfaction of users of AI for accountability purposes. This result is consistent with the findings of Overman et al. [8], Dillard & Vinnari [4], and Hochwarter et al. [36]. Thus, the principal's expertise and legitimacy affect the agent's behaviours and decision-making. This may be due to fear of detection and punishment. The agent tends to make decisions that serve the interests of the principal rather than the agent's personal interests (agency theory). This implies that the greater account-holders' legitimacy and ability to read and use AI to evaluate performance, the more prudent the agent must exercise due diligence and accountability.

For hypothesis H7, the results show that the level of AI disclosure positively affects the users' satisfaction. This finding also confirms that the need to use AI in the public sector in Vietnam for output accountability has not been considered. Because the path coefficient of this structure (β=0.143) is much lower than that of the structures that perceive the contents of account-holders' accountability, legitimacy, and expertise, this finding is contrary to the research results of Mack & Ryan [37] that "general purpose financial reports are used to satisfy accountability needs rather than 'decision-useful' needs." Two main reasons can explain this difference: First, public governance in Vietnam still employs a traditional model that is not output-based, wherein AI is mainly provided to users to control the use of resources. Public forces (inputs) have proper standards, norms, and compliance with regulations instead of enhancing outputs. This is supported by empirical evidence that publication of the annual report and its availability to the public is not complete and timely. It is difficult for the public to access financial information, especially information about the performance of public tasks at public organizations. Second, democracy and transparency in developing countries such as Vietnam remain low, whereas bureaucracy, corruption, and wastefulness remain high. As a result, public institutions, as actors, tend to be more defensive by limiting the information provided to the public.

For hypotheses H2, H4, and H6, the results show that identifying what needs to be explained helps the agent perceive the principal's information, expertise, and legitimacy needs with greater accuracy. This finding is supported by representation theory and information asymmetry theory. When the agent has an information advantage and is more competent than the principal, they are more proactive in deciding what information to provide, when, and to whom.

This study uses a moderator variable to examine whether the parties' experience in the accountability relationship positively affects this relationship. The hypothesis is that H8a is the parties' experience in the accountability relationship that affects felt accountability and information disclosure, and H8b is the experience of the accountability parties that affects felt accountability and users' satisfaction. Accordingly, felt accountability, level of explanation provided, and users' satisfaction increased with the increase in the working experience of the parties in the accountability relationship. Table 3 shows that the first interaction effect (Experience x CAC) in IDA is statistically significant (p=0.038, less than 0.05), with a path coefficient β of 0.072. Therefore, hypothesis H8a is supported. The above finding showed that work experience reduced the positive relationship between felt accountability and perceived response to information requests. However, ISAC's second interaction effect (Experience x CAC) was not statistically significant (p=0.90). Therefore, hypothesis H8b is not supported.

As shown in Table 3, the path coefficients β of hypotheses H2, H4, and H6 are significantly higher than the β of hypotheses H3, H5, and H7. In addition, the f2 of the independent variable CAC to IDA, EAC, and LAC are all above 0.35, which shows that the influence is significant. Meanwhile, the f2 of IDA, EAC, and LAC affect ISAC at 0.029, 0.027, and 0.030, respectively, all of which are lower than 0.15, resulting in minimal impact [43].

The results of this study show that the expertise and legitimacy of the account-holders, and AI disclosure are parallel mediators for the relationship between felt accountability and users' satisfaction with an indirect path coefficient of 0.110, 0.135, and 0.095, respectively. Both parallel mediators contribute partially to the relationship between felt accountability and users' satisfaction, with a total parallel mediating effect of 0.340. The parallel mediating effect is a partial mediating effect. The results suggest that felt accountability directly affects users' satisfaction. The expertise and legitimacy of the account-holders, and AI disclosure partially are mediate the relationship between felt accountability and users' satisfaction.

This result indicates initial evidence that the relationship between felt accountability is strongly correlated with the understanding of expertise, legitimacy, and level of users of AI. Meanwhile, perceived expertise, legitimacy, and level of information users from the account-giver's view have a statistically significant effect, but the path coefficient is significantly smaller. This finding is quite interesting, since it shows that, despite predicting accountability information, the expertise and legitimacy of account-holders will positively influence the behavior and decision-making of the account-giver to meet the accountability obligation. However, the result is still lower than expected by users of AI. Although it is possible to have unreasonable expectations when the accountability results are lower than expected, this also has a negative effect on the accountability relationship. In the long term, if this relationship is not strong, it can affect the organization's overall results.

5- Conclusions

The model in this study proposes 34 scales to measure five concepts of the resulting linear structural model. The model testing results show that all scales except the CAC5 scale ensure reliability, convergent value, and discriminant value; CAC5 belongs to the scale of perception of accountability information. Of the 13 research hypotheses, the results have 11 accepted hypotheses.

From the above, it is evident that felt accountability directly affects the satisfaction of users of AI for accountability and indirectly affects it through the perception of expertise, legitimacy, and request to provide accountability information of account-holders. Occupational differences did not affect account-holders' satisfaction, but mediating work experience reduced the relationship between felt accountability and information responsiveness to account-holders.

The above findings support the view that increasing the need, purpose, and importance of AI based on assumed users does not promote users' usability of AI [5]. This implies that, to bring satisfaction to users of AI, it is necessary to develop an accounting concept framework in the public sector to provide information for accountability purposes. Accordingly, understanding the responsibility to provide what type of information, to whom, and for what purpose for actors in the accountability network will narrow the gap between information supply and demand. More importantly, the account-giver must understand the expertise and legitimacy of the account-holders to provide appropriate, timely, and easy-to-use information to actors within the account-holders. Only then will AI have the potential to be used for accountability purposes in the public sector. The research results provide evidence for the appropriateness of agency theory and social contingency theory in the context of accountability relationships.

The research results contribute to practice. AI only becomes useful and valuable when many people use it for accountability and decision-making. For this view to be appropriate in practice, the account-givers must not only understand the need, purpose, and importance of the AI to be provided but must also be aware of the expertise and legitimacy of the account-holders to determine the timing of providing appropriate AI. Therefore, when developing accounting models in the public sector, professional organizations need to survey the level of use of AI by each actor in the account-holders instead of assuming users.

This result negatively affects the accountability relationship in public organizations in Vietnam. Firstly, the account-givers have more advantages in information and capacity and so, will only act in the interests of the proxies when there is control and punishment. Lack of effective control mechanisms and sufficient deterrent sanctions will result in accountability performance not meeting account-holders' expectations. Secondly, the account-holders have unreasonable expectations about the account-giver's accountability performance. Finally, this study confirms a difference between the supplier and the receiver of information on the usefulness and relevance of AI, consistent with the findings of Ouda & Klischewski [5].

6- Declarations

6-1- Data Availability Statement

The data presented in this study are available on request from the corresponding author.

6-2- Funding

This work was supported by the Industrial University of Ho Chi Minh City.

6-3- Institutional Review Board Statement

Not applicable.

6-4- Informed Consent Statement

Informed consent was obtained from all subjects involved in the study.

6-5- Conflicts of Interest

The author declares that there is no conflict of interest regarding the publication of this manuscript. In addition, the ethical issues, including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, and redundancies have been completely observed by the author.

7- References

[1] Lourenço, R. P., Jorge, S., & Pattaro, A. F. (2013). Online transparency for accountability: One assessing model and two applications. Electronic Journal of E-government, 11, 280-292.

[2] Jorge, S. (2021). Scope of general purpose financial reporting: an accountability perspective. Palgrave Macmillan, 40, 1-30. doi:10.1007/978-3-030-51595-9_4.

[3] Jones, R., & Pendlebury, M. (2000). Public sector accounting. Pearson Education, London, United Kingdom.

[4] Dillard, J., & Vinnari, E. (2019). Critical dialogical accountability: From accounting-based accountability to accountability-based accounting. Critical Perspectives on Accounting, 62, 16-38. doi:10.1016/j.cpa.2018.10.003.

[5] Ouda, H., & Klischewski, R. (2019). Accounting and Politicians: A Theory of Accounting Information Usefulness. Journal of Public Budgeting, Accounting and Financial Management, 31(4), 496–517. doi:10.1108/JPBAFM-10-2018-0113.

[6] Reichard, C., & van Helden, J. (2016). Why Cash-Based Budgeting Still Prevails in an Era of Accrual-Based Reporting in the Public Sector. Accounting, Finance & Governance Review, 23(1–2), 43–65. doi:10.52399/001c.25483.

[7] Van Dooren, W. (2005). What Makes Organisations Measure? Hypotheses on the Causes and Conditions for Performance Measurement. Financial Accountability & Management, 21 (3): 363-383. doi:10.1111/j.0267-4424.2005.00225.x.

[8] Overman, S., Schillemans, T., & Grimmelikhuijsen, S. (2021). A validated measurement for felt relational accountability in the public sector: gauging the account holder's legitimacy and expertise. Public Management Review, 23(12), 1748-1767. doi:10.1080/14719037.2020.1751254.

[9] Frink, D. D., & Ferris, G. R. (1999). The moderating effects of accountability on the conscientiousness-performance relationship. Journal of Business and Psychology, 13, 515-524. doi:10.1023/A:1022918904256.

[10] Green, M. C., Visser, P. S., & Tetlock, P. E. (2000). Coping with accountability cross-pressures: Low-effort evasive tactics and high-effort quests for complex compromises. Personality and Social Psychology Bulletin, 26, 1380–1391. doi:10.1177/0146167200263006.

[11] Dang, T. A., & Nguyen, D. K. N. (2021). Components Constituting the Audit Expectation Gap: The Vietnamese Case. Journal of Asian Finance, Economics and Business, 8(1), 363–373. doi:10.13106/jafeb.2021.vol8.no1.363.

[12] van Helden, J., & Reichard, C. (2019). Making sense of the users of public sector accounting information and their needs. Journal of Public Budgeting, Accounting and Financial Management, 31(4), 478–495. doi:10.1108/JPBAFM-10-2018-0124.

[13] Ouda, H. (2017). Towards an information fit theory based on accounting information matching between producers and users. 16th CIGAR Conference June, XIX(1), 1–31.

[14] van Helden, J. (2016). Literature review and challenging research agenda on politicians' use of accounting information. Public Money and Management, 36(7), 531–538. doi:10.1080/09540962.2016.1237162.

[15] Coy, D., Fischer, M., & Gordon, T. (2001). Public accountability: A new paradigm for college and university annual reports. Critical Perspectives on Accounting, 12(1), 1–31. doi:10.1006/cpac.2000.0416.

[16] Ouda, H. (2021). Scope of General Purpose Financial Reporting: An Accountability Perspective. In Practice-Relevant Accrual Accounting for the Public Sector, 123–162. doi:10.1007/978-3-030-51595-9_4.

[17] Oprisor, T., Tiron-Tudor, A., & Nistor, C. S. (2016). The integrated reporting system: a new accountability enhancement tool for public sector entities. Audit Financiar, 14(139), 747. doi:10.20869/auditf/2016/14/747.

[18] Marcuccio, M., & Steccolini, I. (2009). Patterns of voluntary extended performance reporting in Italian local authorities. International Journal of Public Sector Management, 22(2), 146–167. doi:10.1108/09513550910934547.

[19] Biondi, L., & Bracci, E. (2018). Sustainability, popular and integrated reporting in the public sector: A fad and fashion perspective. Sustainability (Switzerland), 10(9), 1–16. doi:10.3390/su10093112.

[20] Cohen, S., Mamakou, X. J., & Karatzimas, S. (2017). IT-enhanced popular reports: Analyzing citizen preferences. Government Information Quarterly, 34(2), 283–295. doi:10.1016/j.giq.2017.04.003.

[21] Manes-Rossi, F., Aversano, N., & Tartaglia Polcini, P. (2020). Popular reporting: learning from the US experience. Journal of Public Budgeting, Accounting and Financial Management, 32(1), 92–113. doi:10.1108/JPBAFM-01-2019-0013.

[22] Lerner, J. S., & Tetlock, P. E. (1999). Accounting for the effects of accountability. Psychological Bulletin, 125(2), 255–275. doi:10.1037/0033-2909.125.2.255.

[23] Parry, M. & Hughes, J. (2019). Accounting for Governments: from Budget to Audit, 1-805.

[24] Lüder, K. (2013, September). Accrual Accounting and Budgeting in Government–A History of the Hessian "New Administrative Management (NVS)" Project. In 14th Biennial CIGAR Conference, Birmigham, England.

[25] Johnson, C., & Talbot, C. (2007). The UK Parliament and performance: Challenging or challenged? International Review of Administrative Sciences, 73(1), 113–131. doi:10.1177/0020852307075693.

[26] Bourdeaux, C. (2008). Integrating Performance Information into Legislative Budget Processes. Public Performance & Management Review, 31(4), 547–569. doi:10.2753/pmr1530-9576310403.

[27] Stalebrink, O. J., & Frisco, V. (2011). PART in Retrospect: An Examination of Legislators' Attitudes toward PART. Public Budgeting and Finance, 31(2), 1–21. doi:10.1111/j.1540-5850.2011.00977.x.

[28] Raudla, R. (2012). The use of performance information in budgetary decision-making by legislators: Is Estonia any different? Public Administration, 90(4), 1000–1015. doi:10.1111/j.1467-9299.2012.02041.x.

[29] Grossi, G., Hansen, M. B., Johanson, J. E., Vakkuri, J., & Moon, M. J. (2016). Introduction: Comparative performance management and accountability in the age of austerity. Public Performance and Management Review, 39(3), 499–505. doi:10.1080/15309576.2015.1147906.

[30] Monks, R. A., & Minow, N. (1991). Power and accountability. Robert Monks at Stephanie P. Harper Business, New York, United States.

[31] Barberis, P. (1998). The new public management and a new accountability. Public Administration, 76(3), 451–470. doi:10.1111/1467-9299.00111.

[32] Naciri, A., & Hoarau, C. (2001). A comparative analysis of American and French financial reporting philosophies: The case for international accounting standards. Advances in International Accounting, 14, 229–247. doi:10.1016/s0897-3660(01)14012-2.

[33] Hochwarter, W. A., Kacmar, C. J., & Ferris, G. R. (2003). Accountability at work: An examination of antecedents and consequences. Annual Meeting of the Society of Industrial and Organizational Psychology. Orlando, Florida, United States.

[34] Klimoski, R. J., & Frink, D. D. (1998). Toward a theory of accountability in organizations and human resources management. In I. R. Ferris (Ed.), Research in Personnel and Human Resources Management, 16, 1–51.

[35] Ter Bogt, H. J. (2004). Politicians in Search of Performance Information? Survey Research on Dutch Aldermen's Use of Performance Information. Financial Accountability and Management, 20(3), 221–252. doi:10.1111/j.0267-4424.2004.00387.x.

[36] Hochwarter, W. A., Ferris, G. R., Gavin, M. B., Perrewé, P. L., Hall, A. T., & Frink, D. D. (2007). Political skill as neutralizer of felt accountability—job tension effects on job performance ratings: A longitudinal investigation. Organizational Behavior and Human Decision Processes, 102(2), 226–239. doi:10.1016/j.obhdp.2006.09.003.

[37] Mack, J., & Ryan, C. (2006). Reflections on the theoretical underpinnings of the general-purpose financial reports of Australian government departments. Accounting, Auditing and Accountability Journal, 19(4), 592–612. doi:10.1108/09513570610679146.

[38] Hair, J., Hollingsworth, C. L., Randolph, A. B., & Chong, A. Y. L. (2017). An updated and expanded assessment of PLS-SEM in information systems research. Industrial Management and Data Systems, 117(3), 442–458. doi:10.1108/IMDS-04-2016-0130.

[39] Hundleby, J. D. (1968). Reviews: Nunnally, Jum. Psychometric Theory. New York: McGraw-Hill, 1967. American Educational Research Journal, 5(3), 431-433. doi:10.2307/1161962.

[40] Fornell, C., & Larcker, D. F. (1981). Structural Equation Models with Unobservable Variables and Measurement Error: Algebra and Statistics. Journal of Marketing Research, 18(3), 382. doi:10.2307/3150980.

[41] Garson, G.D. (2016). Partial Least Squares: Regression and Structural Equation Models. Statistical Associates Publishers, Asheboro, North Carolina, United States.

[42] Höck, C., Ringle, C. M., & Sarstedt, M. (2010). Management of multi-purpose stadiums: Importance and performance measurement of service interfaces. International Journal of Services, Technology and Management, 14(2–3), 188–207. doi:10.1504/IJSTM.2010.034327.

[43] Cohen, J. (2013). Statistical Power Analysis for the Behavioral Sciences. In Statistical Power Analysis for the Behavioral Sciences. Lawrence Erlbaum Associates Publishing, Routledge, New York, United States. doi:10.4324/9780203771587.