



Towards Hybrid Accountant or Hybrid Accounting? An analysis of Digitalization Consequences

Abstract:

Digitalization introduces substantial changes for the accounting and control function, presenting both opportunities and challenges. At one side, digitalization may lead to productivity, satisfaction with accounting instruments and greater performance. However, it requires resources outside of accounting traditional boundaries, such as skills, capabilities and competencies. To successfully adopt digital tools, accounting needs to rely on other fields of expertise, such as Information Technology (IT) and Data Science. In this context, digitalization promote hybridization: the process of mobility and transferability of tools and techniques between different field of expertise. A gap exist in the literature regarding the extent to which management accounting and control should develop these digital competencies internally versus relying on external expertise from IT and Data Science. This study aims to understand how digitalization in accounting and control leads to hybridization. Out dataset relies on 15 semi-structured interviews with managers and CFOs of digitalized companies. Through content analysis, we categorize data into the three dimensions of hybridization change (operations, identities, and skills). The analysis compares transcribed data from the interviews to find patterns convergence in the empirical data. Our results shows that hybridization occur both to accountants and accounting itself. Digitalization leads to multidisciplinary teams that demands new arrangements of responsibility and roles due to the further approximation of new actors (IT developers and data scientists).

Keywords: Digitalization. Management Accounting. Hybrid Accounting. Hybrid Accountant.

1. Introduction

Digitalization introduces substantial changes for the accounting and control function, presenting both opportunities and challenges (Bhimani & Willcocks, 2014). It creates changes in social and behavioral aspects, in accounting tasks, and in the accountant's organizational role (Andreassen, 2020; Fähndrich, 2023). While the adoption of digital technologies presents challenges, it also leads to greater performance and productivity in several ways (Behera et al., 2015; Truant et al., 2021).

Digital technologies demand resources such as skills, capabilities, and competencies that accountants do not traditionally master (Oesterreich & Teuteberg, 2019). To successfully implement digital tools, the accounting and control function needs support of experts, such as Information Technology (IT) professionals that intensify hybridization: the process of mobility and transferability of tools and techniques between different field of expertise (Caglio, 2003).

The introduction of ERP systems in the late 90s brought new potentials for accounting by new information systems (Rom & Rohde, 2007) that were facilitated by information technology (IT) professionals that become closer to accountants. Since then, the intermingling of those areas (IT and accounting) became an important topic to information systems as well as to other digital solutions, once technology may create new connections between people and organization, but it cannot provide the content of these connections (Dechow et al., 2006). Furthermore, data-driven technologies such as Business Intelligence & Analytics (BI&A) go



beyond IT support by diving into statistics and data science expertise that is far from the reach of most accountants (Rikhardsson & Yigitbasioglu, 2018).

The role of accountants in the digitalized accounting and control function is still uncertain and they should be proactive to maintain their relevance and not lose influence in the organization (Knudsen, 2020). Professional associations in accounting and finance recognize the digital competency as part of the future skillset along with social and business competences (AICPA & CIMA, 2019; IMA, 2019) leading the accountant to a professional beyond the technical realm. In the face of digitalization, accountants face role conflicts (van Slooten et al., 2024) and inter-professional competition (Andreassen, 2020; Wanderley & Horton, 2024). From this standpoint, scholars argues that accounting professionals should embrace its business partner role but without forgetting their traditional and hierarchical stewardship role. This profile is of the hybrid accountant (Karlsson et al., 2019).

At the same time, digital technologies in accounting and control function promotes interdisciplinary teams with accountants, programmers and/or data scientists to deal with different aspects of its adoption, maintenance, and usage. This context creates new horizontal power relations considering the different responsibilities of each individual and this is currently an avenue of research underexplored by the literature (Knudsen, 2020). Those new interactions can be explained by the concept of hybridization (Caglio, 2003), so that digitalization also leads to a hybrid accounting.

The impact of digitalization in accounting and its professionals is promoted by the scientific literature (Andreassen, 2020; Oesterreich et al., 2019; Spraakman et al., 2021) and by practitioners as well (Deloitte, 2021; Jiles, 2020) however, as an ascending topic, it stills lacks empirical evidence (Fähndrich, 2023; Knudsen, 2020; Möller et al., 2020).

Considering the emergence of hybrid accountant and hybrid accounting both promoted by digitalization, the field needs a reassessment of its skillset and digital capabilities while seeking cooperation with experts (Andreassen, 2020; Oesterreich & Teuteberg, 2019). A gap exist in the literature regarding the extent to which management accounting and control should develop these digital competencies internally versus relying on external expertise from fields as IT and Data Science. This study aims to **understand how digitalization in accounting and control leads to hybridization**.

Given the scenario, the objective of this research is to explore the hybridization phenomenon in accounting, both in the professional and the operation domain. To approach the objective, we propose to analyze changes through hybridization in the perspective of operations, identities, and skills as suggested by Oliveira & Ribeiro (2022).

This paper contributes to the literature in digitalization in accounting and control by exploring the new horizontal power relations between accountants and other experts promoted by digital technologies what lacks empirical evidence (Knudsen, 2020). Addressing digitalization through Oliveira & Ribeiro (2022) three-way perspective – operations, identities and skills – allows us to understand the impacts of digitalization simultaneously in the accounting and control practices (through operations) and in the professional domain (identities and skills). For practitioners, it helps target efforts in upskilling accountants in the right direction to properly engage with their peers in data science and IT and to proper adapt practices and processes of accounting in the unavoidable presence of digitalization.

2. Theoretic Background

2.1 Accounting Information Systems (AIS) and Information Technology (IT)

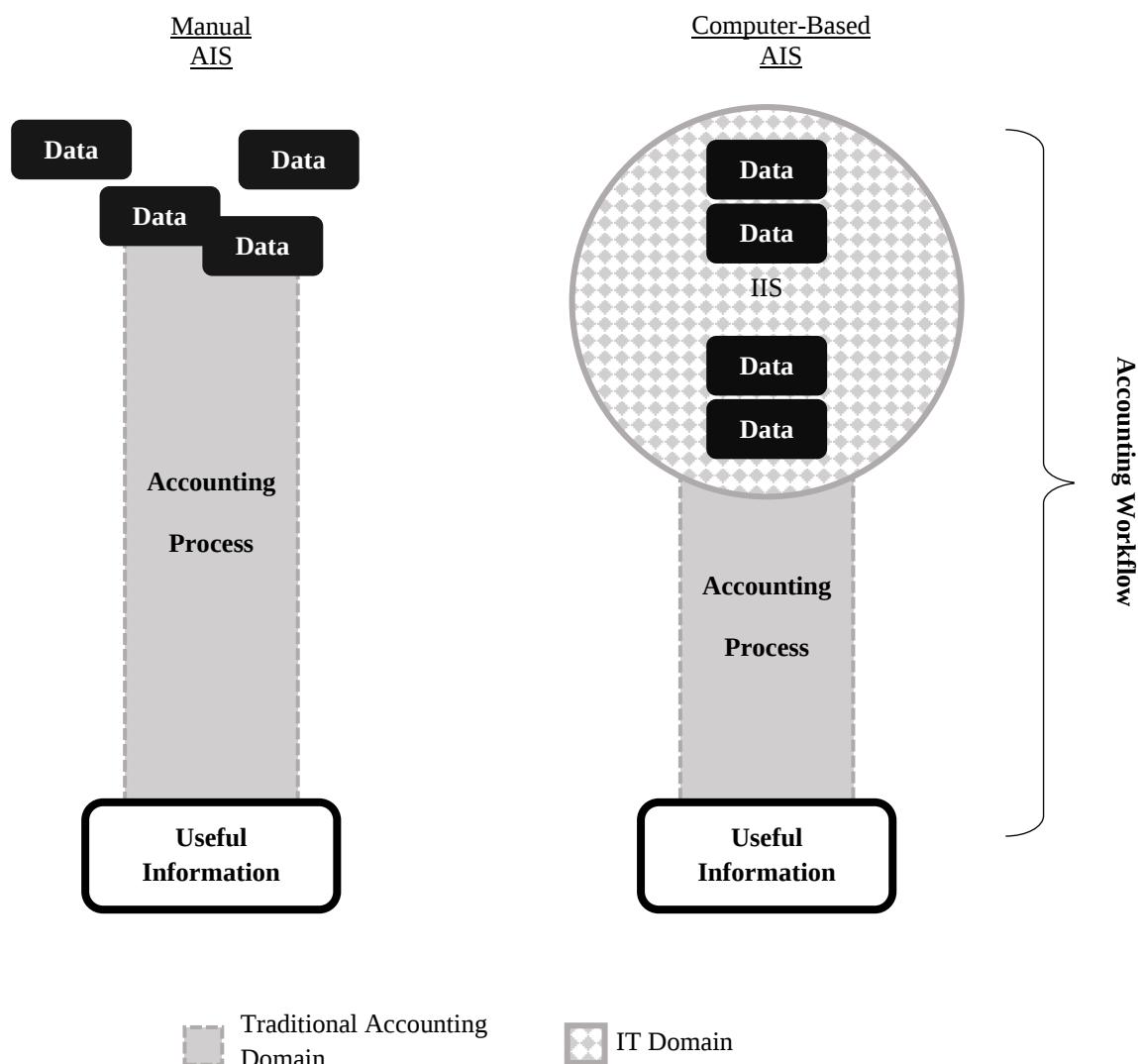


An Accounting Information System (AIS) is the specialized subset of an organizational information system that accumulates, classifies, processes, analyses and communicates to internal and external stakeholders to support decision-making (Crean & Carroll, 2022). The AIS is composed by a collection of resources (people and equipment) to transform financial and non-financial data into information. Although this transformation can be essentially a manual system, AIS may be use as a broader term to include to use of IT, transaction processing cycles and the development of computer-based information systems (Bodnar & Hopwood, 2013).

A computer-based information system is a collection of computer hardware and software designed to transform data into information in the digital environment and the fundamental benefits of using IT within AIS are i) automation of work and processes ii) organization through digital storage of large amounts of digital data and iii) better communication between agents in different locations and/or time (Bodnar & Hopwood, 2013).

The accessibility of powerful personal computers and the increase of its processing power welcomes the wide-spread adoption of integrated information systems (IIS) in the 1990s, that rises with new opportunities and potentials uses to accounting and accountants (Rom & Rohde, 2007).

Figure 1. Manual and Computer-Based AIS.



Source: Authors

Throughout integrated information systems, AIS and IT become strongly intertwined and Information Technology become simultaneously a challenge and a resource for accounting (Dechow et al., 2006). At one hand, extensive manual and dull work could be transferred to machines through programming/automation and storing data and communicating it to stakeholders has become much easier. However, the traditional way of doing accounting (the manual labor of bean-counters) was challenged in the face of technology. By IIS, such as the ERP - Enterprise Resources Planning, it has been argued that accounting literacy has become easily transferable to non-accountants and since accounting knowledge were diffused in the organization, accountants no longer had the monopoly of the organization's core information system: the accounting (Caglio, 2003), besides, the major contribution from technologies for accounting is pointed as cost reduction through headcount reduction (Bodnar & Hopwood, 2013).



To this day, the discussion between the impacts of technology in accounting still takes place in the literature (Appelbaum et al., 2017; Knudsen, 2020; Möller et al., 2020), but instead of looking to information systems, the debate include new formats of digital tools, such as Business Intelligence & Analytics (Rikhardsson & Yigitbasioglu, 2018), Robotic Process Automation (Kokina & Blanchette, 2019), Blockchain (Han et al., 2023) and Artificial Intelligence (Raisch & Krakowski, 2021). However, as before, the impacts of up-to-date digital technologies stills lies in the foundations of the AIS process: i. automation of activities ii. data organization & storage and iii. communication of useful information.

2.2 The Hybrid Accountant

At one point in time, organizations deal with different information systems in each function that operated separately and often with inconsistence practices and incompatible data (Davenport, 1998). Before the advent of advanced computer-based systems, accountants struggled in gathering and processing data from different areas and too much time were spent to prepare information, so that accountants showed bureaucratic behavior orientated to the role of book-keeping (Hopper, 1980). Due to the extensive effort involved in the accounting activity and its manual workflow, accountants lost too much time to process accounting information, not being able to maintain assertiveness in the decision-making support (Johnson & Kaplan, 1987).

With the emergence of Integrated Information Systems, especially ERP, the number of dull activities in the workflow of accountants has gone through big changes. As a consequence of the diffusion of IIS, Caglio (2003) argues that accounting witnesses the phenomenon of hybridization between accounting and IT: the codification of accounting practices by IT professionals in IIS, enabled the decentralization of accounting knowledge and expertise, so that activities pertaining to accountants move out into the IT area or business itself.

The emergence of hybrid accountants involves the mobility and transferability of tools and techniques between them and other groups of experts (Caglio, 2003) and as such, accounting interacts with several knowledge fields such as economics (Hopwood, 1976), information technology (Dechow et al., 2006), data science (Oesterreich et al., 2019) and even marketing (Arnaboldi et al., 2017). Accounting as a body of legitimated practices is formed and re-formed by the adding of devices and ideas from different origins and at the field margins, it intersects with and comes into conflict with other bodies of expertise (Miller, 1998).

With the advent of digitalization, accounting can enhance its capabilities, by increasing the number of strategic activities performed (Fähndrich & Pedell, 2024) and enhance the satisfaction of instruments, such as the budgeting (Bergmann et al., 2020). To reach those achievement, digitalization demands the involvement of other professionals, such as IT professionals and data scientists and this process leads to competition between those professionals to jurisdiction (Andreassen, 2020) and changes of boundaries in the accounting domain (Wanderley & Horton, 2024).

At the same time, the role identity of accountants has become much more fluid to constantly accommodate expectation of each context-specific organizational demand (Rautiainen et al., 2024). Van Slooten et al. (2024) shows that digitalization is also associated with an increase in role conflict and ambiguity, because role templates can be less coherent and clear. In the presence of digitalization in organizational, accountants are challenged to explore tools and techniques of other areas (such as IT and data science), promoting the so-called hybrid accountant (Caglio, 2003).



The management accounting literature also address the hybrid accountant as the accumulation of work of the business partner role, oriented to strategic capabilities, social skills and business advisory as well as the traditional role of accountant focus on technical skills (Graham et al., 2012; Karlsson et al., 2019). Although there is not agreement about what constitute a hybrid accountant, the current paper adopts the understanding of hybrid accountant being a professional of multidisciplinary orientation, considering the capability of interacting and using other bodies of expertise within accounting practice.

2.3 Changes through hybridization

The phenomenon of hybridization promoted by technology and digitalization build a new dimension of hybridity through changes in operations, identities, and skills (Oliveira & Ribeiro, 2022). Operation changes concern the activities and organization processes involving multidisciplinary teams with different experts (such as IT and Data Scientists) regarding the Accounting Information System. Identity changes require the embodiment of new organizational roles as accountants acting as business partners and value creation (Goretzki & Messner, 2019). Finally, changes in skills in the digital era is highly endorsed by professionals' institutes that promotes the diversification of finance profession skillsets in areas such as technology and data science (IMA, 2019; Jiles, 2020; Noah, 2019).

Operation changes regard the dimension of performed tasks, redefinition of involved actors and its respective role in the organization process (Oliveira & Ribeiro, 2022). The impacts of digitalization, and later hybridization, in operation changes of accounting involves the redesign of business processes to increase integration and automation of AIS' tasks by the available digital tools. For such, it is important to discuss the relationship and cooperation between accountants and specialists of other fields (such as IT or Data Science) that are capacitated to implement and maintain digital solution in AIS. Those relationships will rearrange responsibilities in the workflow of the business processes.

Identity changes require the embodiment of new organizational positions of accountants when acting as business partners by creating value in the interaction with other organizational actors (Goretzki & Messner, 2019). To invest time in those interactions, it is important to delegate transactional and rule-based tasks to machine workforce through automation and embrace technology as augmenting human capabilities, instead of replacement (James Wilson & Daugherty, 2018). In this perspective, the identity changes brough by digitalization includes not only cooperation between accountant and other professional groups, but the machine workforce as well.

At last, skills changes in the digital era already are highly endorsed by professionals' institutes that promotes the diversification of finance profession skillsets in areas such as technology and data science (IMA, 2019; Jiles, 2020; Noah, 2019). Along with business knowledge and social skills, technology expertise has long been recognized as essential to accountants and is required to successfully address the changes brough by digitalization.

Dealing with BI&A environments and other digital tools without suitable skills leads to a black-box effect, undermining the understanding of how the system works and threatening the usage and communication of the information (Oliveira & Ribeiro, 2022). It is not the accountant role to fully master technicalities of digital tools, however, they should be proficient and understand fundamentals to ensure a proper usage of digital tools. Kokina et al. (2021) argues that, in the adoption of RPA, accountants should be able to performance several roles, as identifier (spotting opportunities), explainer (communicating with developers), sustainer



(managing the post-implementation) and analyzer (providing better insights by leveraging enhanced processes), while the trainer role (e.g. programming) is better suited to IT professionals with coding skills.

Table 1. Hybridization

Hybridization Manifestations		
Accountant		Accounting
Skills	Identity	Operations
Fusion Skill Social Skill Business Skill	Responsibility Share in Accounting Activities Cooperation w/ different experts groups Cooperation w/ machine workforce	Multidisciplinary Teams New Tasks Redefinition of Involved Actors and Roles Rearrange of Responsibilities

Source: Authors

3. Research Design

This study employs a multiple case approach, conducting interviews with CFOs, controllers, managers and accountants from different organizations. The methodology involves a cross-sectional field study with in-depth data from non-random cases. This approach is a balance between the broader scope of surveys and the depth of a case study (Lillis & Mundy, 2005). This design is suitable for novel research areas or those with scarce qualitative evidence, which is the particular case for the literature of digitalization in accounting and control (Bhimani, 2020; Möller et al., 2020). The multiple case approach is used in the management accounting literature for digitalization (Kokina et al., 2021; Kokina & Blanchette, 2019; Rikhardsson & Dull, 2016; Schnegg & Möller, 2022).

3.1. Data Collection

Collected data includes 15 interviews totalizing about 10 hours of recording. Participants with professional activity in the finance function were contacted via LinkedIn and invite to participate in the research (Table 1). The criteria used to select the participants included the (i) professional background and previous experience according to the LinkedIn profile, that should include roles in the Accounting and Control Function and interest in digital technologies (ii) current organization, that should represent at least medium-size companies or industries with high digital maturity, such as financial services and startups.

Table 2. Interview Data

ID	Participant		Organization	Interview	
	Role	Background	Business	Data	Minutes
1	CFO	Accountant	Biotechnology	05/2022	30
2	CFO	Engineer	Financial Inst.	06/2022	21
3	Specialist	Accountant / Economist	Medical Supply	06/2022	26
4	Controller	Accountant	Advertising	07/2022	31
5	Controller	Accountant	Food	07/2022	22
6	CEO	Lawyer	Fintech	07/2022	30
7	Specialist	Accountant	Financial Inst.	08/2022	30
8	Supervisor	Accountant	Car Rental	09/2022	43
9	Controller	Accountant	Textile	09/2022	60
10	Supervisor	Computer Science	Agribusiness	09/2022	61
11	Manager	Accountant	Financial Inst.	09/2022	51



12	Manager	Accountant	Industry	09/2022	42
13	CFO	Accountant	Startup (Delivery)	10/2022	62
14	Manager	Accountant	Militar	10/2022	32
15	Manager	Accountant	Financial Inst.	11/2022	50

Source: Authors

3.2 Data Analysis

This study relies on audio data as an extended discourse, which is a passage of spoken words (Saunders et al., 2019). The interview data were revisited multiple times both to transcription and analysis in the software MaxQDA, used for content analysis. The software supported the data's organization involved in the coding process (Hoque et al., 2017).

To categorize data into the three dimensions of hybridization change (operations, identities, and skills), we employ the technique of pattern matching proposed by Yin (2015) during the coding process. The analysis compares transcribed data from the interviews and if where is patterns convergence in the empirical data, results emerges and conclusion can be drawn (Yin, 2015).

4. Results

The skillset demanded by a digitalized environment is known to be broader than the current knowledge of accountants. Accountants should expand skills in programming, analytics and develop greater intelligence emotionally and socially (Oesterreich and Teuteberg, 2019). At the same time, professionals working side to side with accountant should, in the same way, understand basic accounting, so that the interaction between IT specialists and accountants become productive.

Experience dictates the rules, so if I'm there implementing a robust ERP like SAP or Oracle and I have a highly experienced IT team, but they don't know what debit and credit are, they won't be able to accomplish anything (Interviewee 9, Controller, Textile Business)

The advance of the machine workforce (automation) in the organizational processes changes how human workforce is employed and the current professional staff should be willing to engage in new activities. Repetitive and rule-based tasks previously performed by junior staff, are subject to automation more easily under a digitalized environment. Without the use of human workforce in rule-based tasks, junior staff can be re-signified to training in more complex activities or resolve demands not directed for those professionals before.

I train the person, I guide, I instruct until I see that they have the confidence to handle it independently. Now, now the ball is in your court. Now you only come to me when you have doubts. From a certain point on, you redistribute and gain a bit more trust from the team. We always know that when you pass on a certain responsibility and create credibility based on that work, the person feels much better working, right? They remove that feeling of being squeezed, of being just a button pusher, and they feel a



bit more strategic in the process, knowing that what they're doing is important, right? (Interviewee 9, Controller, Textile Business)

Some academic arguments that automation led to least headcount in accounting (Frey & Osborne, 2017), however, an alternative viewpoint posits that technology's larger impact is on complementing and augmenting human capabilities, not replacing them (James Wilson & Daugherty, 2018). In our data, the encounter of human and machine workforce in the analyzed cases resulted in different scenarios. Accounting managers may upskill junior staff previously responsible for automated tasks, such as the above quote of interviewee 9; or alternatively, reallocate staff for a correlated function, reducing headcount as of the increase of machine workforce (automation solutions):

(After adopting an automation solution) The gains were immense in terms of man-hours, especially because it was a very labor-intensive task and the staff (previously dedicated in that task) were reallocated to another organizational area (Interviewee 5, Controller, Restaurant Franchise Group)

To investigate digitization in the accounting domain through its impacts in operations, we look to the digital tools utilized and its subsequent changes in the area. We identified three different consequences of digitalization in accounting: (i) Multidisciplinary Teams; (ii) Redefinition of Involved Actors and Roles; and (iii) Rearrange of Responsibilities.

With the adoption of digital tools in Accounting Information Systems, the involvement of IT specialists is inevitable. They have skills, knowledge and organizational privilege to access and adapt those digital tools to the organizational information system (e.g. ERP). Digital tools applied in the accounting function includes solutions for automation (such as Robotic Process Automation), dashboards for visualization (e.g. Business Intelligence environments) and data analytics (Aguiar et al., 2021). In order to adopt those solutions in a Computer-Based Accounting Information System, IT specialists provide the technical expertise to adopt and update those digital tools inside the organization's integrated information system.

I have several squads—groups of developers—who develop solutions. We are a fintech, so everything here is data lake, everything here is database, everything here is technology. I don't have a factory; I have transactions happening all the time and a high transactional volume on our app. I have a tech team of developers who manage databases for me, implements our ERP, provides support to the HR team regarding payroll, etc. (Interviewee 2, CFO, Financial Institution)

The context of Interviewee 2 shows that accountants (as well as other organizational groups) and IT developers are getting closer. In the past, a separate IT team of developers could be enough to support sporadic demands regarding digital tools, however, the widespread presence of digitization demands dedicated teams only with this purpose, so that multidisciplinary teams are arising:



There is a weekly meeting between the data team and the accounting department to align the key projects in the area, which include data analysis, RPA implementation, topics related to the ERP (such as recording financial transactions), and the optimization of databases that can no longer support the company's growth and require new engines.

These projects are expected to improve with the recent IT cell in the accounting department. Before this cell was established, the IT team provided services to the accounting department, but now, there is a new team of developers dedicated these process optimization projects. (Interviewee 2, CFO, Financial Institution)

As the interviewee 2 stated, a dedicated team of developers is necessary to implement projects related to digitalization. Those developers are closer to the accounting in a weekly basis, so that occasionally support of IT teams are no longer enough. Digitalization leads to multidisciplinary teams working closer. This phenomenon is also noted by Interviewee 15 within projects focused on Data Analytics:

(Data Scientists are) very data-focused but lacks accounting knowledge. However, they need to base their work on accounting knowledge to make the correct interpretation. The perfect match is knowing both accounting and data science.

However, the accountant won't know how to handle a database with 2,000,000 records and it's much less traumatic to train a data scientist in accounting than the other way around. (Interviewee 15, Manager, Financial Institution)

The use of data analytics demands programming skills and understanding of statistics that accountants don't traditionally master so that others professional groups are necessary to use advanced data analytics and can even compete with accountants, such as in the role of supporting decision-making. This corroborates with Andreassen (2020) and Wanderley & Horton (2024) that highlights the competition of jurisdiction between different professionals' groups and changes in accounting domain boundaries with other fields. Not only this manifestation of digitalization (data analytics) calls for multidisciplinary teams but rearrange involved actors and roles inside accounting.

However, experience and accounting expertise is still an important piece in the adoption of digital solutions in AIS. The involvement of outside actors in the AIS domain provides risks to the accounting information and the clear arrangement of responsibilities and roles are important during the interaction between developers and accountants. The interviewee 9 exemplifies that automation solutions performed by IT specialists without proper validation by experienced accountants may interfere with the accounting information quality:

It seems that the user goes to the IT department and requests an improvement in the way they believe is best, but I mean, the system doesn't go through a validation to check if the process is



coherent. So, it ends up happening that what one user considers good for them might be bad for another, depending on how the process is flowing. So, when you correct one aspect, it might become worse for another. It's like covering the face and uncovering the legs, isn't it? (Interviewee 9, Controller, Textile Business)

The impacts of digitalization in the accounting domain promote interdisciplinary teams including mainly IT developers, Data Scientists and Accountants. Consequently, new sets of actors and roles arises as well as new responsibilities. Considering this context, digitalization in the field of accounting involves the mobility and transferability of tools and techniques of accounting and other groups of experts (Caglio, 2003), so that the field itself is subjected to hybridization. In order to function in digitalized firms, accounting cannot operate without adapting its structure to settle outside actors brought by digitalization.

5. Discussion

The adoption of digital technologies intensifies the process of hybridization in the Accounting and Control Function and creates significant changes in the role of accountants and the field of accounting itself. The relationship of accountants and IT specialists has gain attention since the spread of Integrated Information Systems (Dechow et al., 2006) and with the advent of newer digital technologies, this relationship amplified and started to occur in others professional groups as well, such as data scientists (Oesterreich et al., 2019).

With the support of experts, accounting can adopt and maintain digital technologies in its AIS, however, accounting proficiency of accountants is still essential to maintain accounting information quality. This corroborates with Korhonen et al. (2021), who shows that some activities in accounting function may seem good fits to automation but are not always the case.

The usage of digital tools is adopted and maintained by developers with collaboration of professionals of the accounting domain. Digitalization in accounting leads to multidisciplinary teams that demands new responsibility arrangement between the involved actors and role. For instance, IT developers need a close relationship to accountants to proper adapt digital solutions to accounting needs in the IIS of the organization.

In face of digitalization, accountants should be prepared to face hybridization, that significantly demands new capabilities that changes their Skills and Identity. To properly adopt and use digital technologies, accountant cannot act individually anymore in the AIS and this scenario leads to a hybrid accounting team, so that changes impact accounting field itself.

In this perspective, hybridization not only induce transformation in the domain of professional accountants, but also permeates broader in the accounting field. The involvement of external groups of professionals introduces new responsibilities and roles that emerges from collaborative activities between these groups.

In one hand, accountants collaborate with IT development specialists to facilitate the adoption and maintenance of digital technologies in AIS, through cooperation. On the other hand, accountants compete with data scientists in the role of decision-making supporter, once accounting offer interpretation and reasonable decision-making through historic accounting data versus a data-centric approach with rational decision-making.

6. Conclusion



This study aimed to explore the hybridization phenomenon in accounting, both in the professional and the operation domain in different contexts. An exploratory method of multiple case is employed, considering the singularities of each organizational context. The analysis was performed through 15 interviews with CFO and managers. We discuss the hybridization phenomenon in three different perspectives: Skills, Identity and Operations, following (Oliveira & Ribeiro, 2022). While Skills and Identity occur in the professional helm, Operations impacts the accounting area itself.

Our results show that accountants should upskill to understand the changes being made in their tasks to be able to interact and use digital technologies that add value in its organizational role as a hybrid accountant. However, expertise in programming and software development requires resources and capabilities beyond the reach of accountants and in that way, even with upskilled accountants, others professionals are still necessary in accounting and control function for the adoption and maintenance of digital technologies; this may lead to a multidisciplinary accounting and control function - hybrid accounting.

In the face of hybridization brought by digital technologies, the accounting and control function gains a multidisciplinary team with new roles and shared responsibilities while accountants gain new kinds of cooperation when working closer to other groups of professionals, such as software developers, but at the same time, face new challenges brought by competition between jurisdictions, especially regarding data-driven decision-making support (Andreassen, 2020).

The study design has limitations duo to the data collected by one participant per company only and the findings are limited to the perception of a single individual. The accounting function is heterogeneous within each organization that has its own configurations, so that different contexts differ from each other and generalization is not possible, especially, considering the qualitative nature of this research.

This research contributes to the scientific literature by exploring the impacts of digitalization in accounting and control, with is a recent area of research that is still in its infancy (Moller, 2020). In the practical environment, this research shows the urgent need to accountants revise their expertise and reposition themselves in the organizational environment, so they can remain relevant. At the same time, our results indicate that digitalization leads to multidisciplinary across functions, so that it intensifies the mobility and transferability of tools and techniques between different groups of experts (Caglio, 2003) through the hybridization of accounting and accountants.

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