

**Abstract from:** Carla Filipa Barbosa Pinto

**Student nº:** PG57099

**Email:** pg57099@alunos.uminho.pt

**Academic Supervisor:** Maria Alexandra Soares Fontes

**Masters in Accounting**

**Artificial Intelligence and the transformation of the controller's identity:  
a case study at Bosch**

This internship report investigates how Artificial Intelligence (AI) reshapes management accounting practices and redefines the professional identity of controllers at Bosch Car Multimedia. The study is grounded in the recognition that contemporary accounting is a socially embedded practice shaped by broader environmental and organizational transformations. In an era marked by geopolitical instability, economic volatility, technological disruption, and increasing demands for sustainability and corporate responsibility, traditional management accounting models face significant limitations. AI emerges not merely as an automation tool, but as a catalyst for a profound epistemological shift from deductive, variance-based logic toward inductive, data-driven reasoning. This transformation challenges not only accounting techniques and control systems, but also the professional identity, competencies, and organizational positioning of management accountants and controllers, particularly in complex multinational organizations, such as Bosch.

The study will be conducted during a curricular internship at Bosch Car Multimedia Portugal, S.A., in Braga, between October 2025 and October 2026, focusing specifically on the controlling finance team (CTG) and its budgeting and planning processes. The central research question guiding this study is: **How does Artificial Intelligence reshape management accounting practices and redefine the professional identity of controllers at Bosch Car Multimedia?** To address this question, the research pursues four specific objectives: (1) examine the transition from traditional management control to the 'Accounting 4.0' digital paradigm at Bosch Car Multimedia; (2) identify and analyze the organizational, technical, and socio-cultural conditions that shape and mediate the adoption of AI within the controlling department; (3) explore how AI-mediated practices reconfigure the professional identity of controllers at Bosch Car Multimedia; and (4) develop evidence-based recommendations to

promote effective human–machine collaboration and enhance AI-enabled budgetary agility in this organizational context.

The research adopts an interpretivist epistemology, acknowledging that the transformation of the controller's role is not a purely technical adjustment but rather socially constructed and an identity-constituting process, shaped by narratives, practices, and the meanings ascribed to AI. The theoretical framework integrates professional identity theory and contingency theory to capture the complexity of AI integration, in which technology interacts with individual perceptions under varying external pressures. A qualitative case study design will be implemented, drawing on internal Bosch documentation, direct observation, and semi-structured interviews with controllers and accounting managers. This approach allows for an in-depth exploration of AI integration within its real-world context.

This research is expected to contribute theoretically by advancing understanding of how digital technologies reconfigure management accounting practices, and, in doing so, reshape the professional identity of controllers within high-technology industrial environments. Empirically, it addresses the relative scarcity of in-depth studies examining how controllers experience and interpret AI-driven transformations in their daily practices. The study aims to provide recommendations to support sustainable human - AI collaboration and to facilitate the transition of management accountants and controllers from traditional data-processing roles toward more strategic and analytically empowered business partners formation.

**Keywords:** Accounting, Artificial Intelligence, Management Accounting, Professional Identity, Accounting 4.0; Controllers; Digital Transformation.