



UNIVERSIDADE CATÓLICA PORTUGUESA

Management Control Systems

A case study on a Portuguese Law firm

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Católica Porto Business School

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by

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Abstract

The present study was carried out as part of the curricular internship in the management control department in a law firm in Portugal, between September 2021 and February 2022.

This study aims to analyse which management control tools are most used in the legal practice in Portugal. The legal industry in Portugal is very institutionalised and has undergone little external change, limiting the space for innovation. However, this panorama has experienced some changes (S. S. Samuelson, 1989). Through a qualitative case study of the legal industry in Portugal, this paper shows how management control systems have been adapted, through digital tools and artificial intelligence, putting the dominant logic under threat.

Through a questionnaire conducted by the ROOX company that characterises the legal industry in Portugal, it is possible to conclude that law firms do not use the potential of Business Process Management and Business Intelligence in their management performance, although there is an awareness for their use.

This work contrasts the conservative vision of law firms with innovative practices that the firm under study has been adapting.

Consequently, this work contributes to our understanding of digital innovation and digital transformation within highly institutional industries, as well as the interaction between the enterprise resource planning system and the management control system leading to an improvement in firm performance.

Keywords: management control systems, Service industries, ERP, Portuguese law firms, Business process management, Business intelligence.
8202 words

Resumo

O presente estudo foi realizado no âmbito do estágio curricular no departamento de controlo de gestão numa empresa de advocacia em Portugal, entre setembro de 2021 a fevereiro de 2022.

Este estudo visa analisar quais as ferramentas de controlo de gestão mais utilizadas na advocacia em Portugal. A indústria jurídica em Portugal está muito institucionalizada e tem sofrido poucas mudanças externas, limitando o espaço para inovação. Contudo, este panorama tem experienciado algumas alterações (S. S. Samuelson, 1989). Através de um estudo de caso qualitativo da indústria jurídica em Portugal, este trabalho apresenta como os sistemas de controlo de gestão têm sido adaptados, através de ferramentas digitais e de inteligência artificial, colocando a lógica dominante sob ameaça.

Através de um questionário realizado pela empresa ROOX que caracteriza a indústria jurídica em Portugal, é possível concluir que os escritórios não usam o potencial do BPM e BI na sua performance de gestão, embora haja uma consciencialização para a sua utilização.

Este trabalho contrasta a visão conservadora dos escritórios de advocacia com práticas inovadoras que a empresa em estudo tem vindo a adaptar.

Consequentemente, este trabalho contribui para a nossa compreensão da inovação digital e da transformação digital no seio de indústrias altamente institucionais, bem como a interação entre o sistema de planeamento de recursos empresariais e o sistema de controlo de gestão, levando a uma melhoria do desempenho da empresa.

Palavras-chave: sistemas de controlo de gestão, Indústria de serviços, ERP, escritórios de advocacia portugueses, Gestão de processos empresariais, inteligência empresarial.

8202 palavras

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Table of abbreviations

BI – Business Intelligence

BPM – Business Process Management

CRM – Customer Relationship Management

ERP – Enterprise Resource Planning

IT – Information Technology

KPI – Key Performance Indicators

MCS – Management Control Systems

M&A – Mergers and Acquisitions

PMS – Performance Management Systems

PSFs – Professional Service Firms

QM - Quality Management

TMT - Technology, Media, and Telecommunications

Introduction

Organisations are living in an unpredictable environment, and if they want to be competitive in this new fast-paced era, they must have a dynamic structure (Ulas Akkucuk July 2019).

Law firms used to be considered stable and equable organisations with a strong family spirit. Today law firms have been shaped by major economic forces, and for this reason, there is a big pressure to reshape their structure by developing more sophisticated management and making room for innovation (S. S. Samuelson, 1989). It is essential that firms recognize organizational change so they can survive in today's business environment (Jung et al., 2020). Law firms are in a phase of change, aiming to develop their competitive advantage and to achieve greater profitability (S. S. Samuelson, 1989). According to Stough (2003), innovation in law firms has until more recent years been a subject that has attracted little attention on a national level despite that innovation is one of the most important catalyzers for economic growth and progress.

Robert Simons, 2000 describes management control as a critical role in ensuring firms to gain a sustainable competitive advantage, and to enable firms to create an appropriate response to this pressure. The fundamental question Robert Simons raises is how managers will adapt management control mechanisms in organisations looking for flexibility, innovation, and creativity.

This issue extends to the legal industry, which has very particular characteristics.

This Master's Final Assignment aims to examine the management control mechanisms used in a law firm in Portugal, whose identity has been protected. It also intends to compare it with other law firms in Portugal. In order to pursue these aims, this work should find the answer to the following research question:

How the under-study company's MCS compares with other Portuguese law firms, in a global context where law firms are increasingly seeking for flexibility, innovation, and creativity?

Regarding its structure, the assignment is divided into six chapters.

The first chapter covers the literature review on management control and management control systems, with special emphasis on its interaction with ERP. This chapter also refers to the management control of professional service firms, highlighting the legal industry.

The second chapter addresses the research question and, in order to find answers to it, explains the selected methodology for data collection.

The third chapter describes the company where the curricular internship was performed, and the management control mechanisms adopted.

The fourth chapter addresses the results of a questionnaire that was conducted in 2021 by the ROOX company, about the legal industry in Portugal.

The fifth chapter, the discussion, reflects the strengths and weaknesses of this company, in the light of the literature review, and some improvements are suggested.

Finally, the sixth chapter presents the main conclusions of this research.

Chapter 1

Literature Review

This chapter reviews the literature on management control, and its interaction with ERP. This is followed by a description of management control in professional service companies, and an analysis of the legal industry.

1.1 Management Control

In 2000, Robert Simons says that if companies are to survive in uncertain environments, they need to improve their performance, by having a deep understanding of management control systems in formulating a business strategy, leading to a sustainable competitive advantage. Adopting business models empower firms to address strategic uncertainties and risks in the competitive, complex, and changing business environment around the world. (Adnan A. Alkhafaji, 2018). The authors Chen Ming, Cui Bibo, and Man Haiyan (2012) agree that relying on management control, organisations can normalise and guide corporate behaviour, control innovation risk, and select a suitable innovative model.

Different authors have contributed to developing the definition of management control.

Management control was defined by Anthony (1965), as “the process by which managers assure that resources are obtained and used effectively and efficiently in the accomplishment of the organization’s objectives”.

In 1971, Lowe presents a broader vision of Management Control in a more comprehensive definition. The author considers as a system of organisational information seeking and gathering, accountability and feedback that enables companies to adapt to changes in their substantive environment. Employees' work behaviour is measured based on operational subgoals, which are in line with the overall objectives of the company so that the discrepancy between the two can be reconciled and corrected for.

By 1985, according to some authors, the concept of management control continues to have a strong focus on behavioural aspects. It was defined as a set of mechanisms managers use to influence behaviours of individuals and groups according to certain objectives (Flamholtz et al., 1985). These mechanisms can include individual supervision, performance evaluation and reward systems and are used in a collaborative way.

Robert Simons (1995) highlights two key dimensions in defining management control:

An economic and strategic dimension which consists of choosing the operational procedures and regulations that allow fixed objectives to be achieved.

An organisational and social dimension that allows to influence the employees' behaviours so that they act according to the operational rules and regulations.

Robert N. Anthony and Vijay Govindarajan (2007) establish the difference between management control function, from strategy formulation and from task control. They define strategy formulation as the activity that sets goals and objectives for the entire organization in the long run, and task control as an activity that focuses on ensuring the completion of immediate tasks. Management control is the process that links strategic planning to operational

control. It is designed so that the everyday activities performed by all the members of the organisation can take the form of a set of coordinated actions that lead to overall goal specification and attainment. The overall objectives will be subdivided for the different parts of the organisation and those for the long term will be solidified for the short term; declarations of future intentions are given a more substantive content.

According to Anthony (1965), management control includes a set of activities, such as:

- Planning what is to be done and how to do it in advance
- Coordinating the activities of the different parts of the organisation, to guarantee harmony between the different parts of an organisation
- Communicating and reporting the information
- Evaluating information
- Deciding what actions should be taken
- Influencing people's behaviour

1.1.1 Management Control Systems

The processes and control mechanisms are used simultaneously as a Management Control System (MCS), and various structures have been proposed to systematise and classify these diverse combinations of management controls (Ferreira and Otley, 2009; Malmi and Brown, 2008; Robert Simons, 1995).

In 1987, Robert Simons defines MCS as formal, information-based routines and procedures, designed specifically to provide information, financial (net income, return on equity...) and non-financial (product quality, market share, customer satisfaction, on-time delivery, and employee morale...), so that

managers can make informed and efficient decisions, maintaining or altering standards in their organisational activities.

Merchant & Otley (2006) considered that the purpose of MCS is to provide information that is useful for management decision-making, planning, monitoring, and evaluation of organizational activities to alter employee behaviour. In 2002, Marginson says that MCS provide strategic direction to the innovative efforts of companies.

Much of MCS research has previously been dominated by accounting controls and accounting information. However, this orientation is not broad enough today to capture modern approaches to effective control. (Emmanuel et al., 1990). Already in 1986, Parker criticised accounting models for offering only a limited reflection of management control models. To become more relevant, MCS need to go beyond financial analysis and to include nonfinancial analysis (Chenhall, 2003; Nyamori, Perera, & Lawrence, 2001).

According with this perspective, David Otley believes that management accounting and other performance measurement practices need to be evaluated not only from an economic perspective, but also from a social, behavioural, and managerial perception within an overall organisational context. The author emphasises the importance of a comprehensive understanding of the MCS as a package to simplify the development of better theory on the designing a set of controls that support organisational objectives, control activities, and drive organisational performance to produce desired outcomes. There is evidence that high organizational performance may result from a matching of an organization's environment, strategy, and internal structures and systems (Govindarajan, 1988).

The authors recognized that any comprehensive measurement and management system had to link operational performance improvements to customer and financial performance. A robust measurement and management

system that includes not only operational metrics but also leading indicators and financial metrics along with various other metrics to measure a company's progress in driving future performance is essential.

Once the fundamentals of an organisation are established, specifically in terms of mission, strategy, diagnostic control systems and related incentives, managers' focus is on a control system that is highly interactive.

They call management's attention to developments that indicate the need for new strategic initiatives. Today's controls are the tomorrow's strategy. Interactive controls are an integral part of the management control systems (Robert N. Anthony; Vijay Govindarajan, 2007).

When systems are used interactively, usually the following conditions apply:

Management Control System generates information that is an important and recurring agenda for the highest levels of management.

The process requires frequent and regular attention from operational managers at all levels of the organization.

Data are interpreted and discussed in face-to-face meetings of superiors, subordinates, and colleagues.

The process relies on the continual challenge and debate of underlying data, assumptions, and action plans (Robert Simons, 1987).

1.1.2 Different types of Control Systems

Robert Simons (1991) identified five different types of control systems which managers may choose to use interactively:

Programmed management systems

It is a type of management control system, that monitors organizational activity, normally on a project basis. The new programmes or projects are aimed to improve product attributes, on ways of improving workflow processes, and on various types of basic and applied research programs. Critical path analysis, Gantt charts, and other sorts of planning and innovative analysis are typical in these systems.

Profit planning systems

It is a management control system focused on individual business units, encompassing annual profit plans or budgets, second-year forecasts, strategic operating and financial plans, and long-term plans.

These systems report planned and actual revenues and expenses by category. They are presented in financial language and supported by analysis and action plans.

Brand revenue budgets

These are more detailed control systems as they report the information in a more in-depth way on the profits described above. Brand revenue budgets focus exclusively on revenue by brand. Brand revenue data is broken down into unit volume and price by market segment, packaging type, and promotion campaign. Market share data and shipment data by brand are also typically included in these systems.

Intelligence systems

These management control systems gather information about the company's social, political, and technical environments. Industry data is acquired; This information, as well as information from political speeches, scientific and trade journals, and competitors' annual reports, is compiled into databases, distributed, and monitored frequently throughout the organisation.

Human development systems

These systems are mainly aimed at monitoring employee development plans and adapting an inventory of competencies. It is a type of management control system that includes long-range strategic workforce systems, management by objectives, career development and counselling systems, and finally succession planning systems.

In industries subject to rapid environmental change, management control information, especially of a non-financial nature, can provide the foundation for considering new strategies. Hence, organisations require an infrastructure to process the information. (Robert N. Anthony; Vijay Govindarajan, 2007).

Nowadays, information is entered into computer systems and captured in standard formats, documents, or computer-based systems. The recording, analysis and distribution of information is integrated into the rhythm of the organisation and is often based on predetermined practices and predefined moments in the business cycle (Robert Simons, 1995).

This information is used to customise and personalise reports for managers.

1.2 The role of ERP in Management Control

When talking about MCS and the performance of a company, it is imperative to talk about the ERP (Enterprise Resource Planning system) that gathers all the information that serves as a starting point for various units (Dechow, Granlund and Mouritsen, 2007).

ERP is an important informational technological infrastructure for cost control and business management control systems (Beaubien, 2013: 49). It can be defined as a complex computer-based information system that includes all business units and operation processes. This technological infrastructure gives a holistic view to managers because of the ability to integrate different processes and functions of the organisation. Data on basic operational activities such as procurement, production, distribution, and sales are automatically registered, and repetitions and errors in the data processing process are reducing, communication with clients and suppliers is improving, every employee can have access to information and reports immediately, and data updates are performed automatically. (Granlund and Mouritsen, 2003).

According to Dechow and Mouritsen (2005), ERP promise seamless integration of all information flows within and across organisation.

Jack ve Kholeif (2008) considers ERP systems the most important development in business use of information technology and is motivated by management's need for timely access to comprehensible information across the organisation units and functions (Shaiti, 2014: 40).

1.2.1 ERP and Management Control Interaction

It is important to collect, store, report and communicate detailed and real-time information on workplace behaviours to manage and control.

Melek Eker and Semih Eker reported in *Business and Economics research Journal* that until the 1990s, enterprise units had their own information system which was independent from other units. ERP brought the possibility to use management control systems in a more interactive way and became a crucial tool for management control. In addition to integrating organisational processes, it provides all members of the organisation with real-time data that can be accessed remotely and instantly.

Shang and Seddon (2000) classified the benefits of ERP into five main headings.

Cost reduction, cycle time reduction, productivity improvement, quality improvement, and customer service improvement are operational.

Better resource management, Improved decision-making and planning, and performance improvement are managerial.

Support to business growth and competitive advantage, configuring the innovation and regulation of external links are strategic.

Business flexibility, savings on info-tech cost, and strengthening of info-tech infrastructure are info-tech infrastructural.

Support to organizational changes, organizational learning, empowerment, and built common visions are organizational benefits of ERP.

In addition to all these benefits, the ERP system has added value from an accounting perspective because routine management accounting work has been eliminated, providing more reliable information and a broader role for management accountants (Hyvonen, T and Scapens&Jazayeri, 2003).

1.3 Management Control in Professional Service Firms

John Bowen and Robert C. Ford, in *Journal of Management*, present the differences between managing an organisation that produces something that can be seen, touched, and held, from an organisation that produces something that is perceived, felt, and experienced.

The authors identified differences between organisations producing tangible goods from the ones producing intangible services. These differences relate to the measurements used to assess effectiveness and efficiency, differences in production strategies and differences in production processes.

One of the most used definitions for services as intangible products is “an act or performance offered by one party to another. Although the process may be tied to a physical product, the performance is essentially intangible and does not result in ownership of any of the factors of production” (Lovelock, 2000).

In 2000, Zeithaml and Bitner point out as characteristics that differentiate service management from the management of goods, the intangibility and its results, simultaneous production and consumption, and perishability and heterogeneity.

John Bowen and Robert C. Ford propose that intangibility and the outcomes of intangibility create major differences between the way an organisation producing services or producing tangible products are managed.

In academic research on Quality Management (QM) in Professional Service Firms (PSFs), the editorial note on "Professional Service Operations Management" (Harvey et al., 2016) emphasised the role of customer awareness and accuracy in recognising relevant service quality attributes. Also mentioned by the authors were the relevance of proxy quality indicators (such as partnership-based organisational structure) in assessing company service

quality. A great deal of research on professional service quality is modelling the gap in customer expectations and perception (Huang et al., 2019; Parasuraman et al., 1988; Zeithaml, 1988).

According to Gronroos (2000), companies must understand how to build a lasting relationship with customers, and with this comes a need to identify the key drivers of their target customers. The organisation must spend considerable time and effort discovering and then controlling their past, present, and future expectations.

Based on empirical research in Management Consulting firms, Brandon-Jones et al. (2016) demonstrated that both firm-level (scale of operations, degree of specialisation) and individual-level (leverage, partnerships) characteristics have an impact on professional service quality planning and control.

1.3.1 Legal industry

A legal service, despite sometimes being a tangible product (brief, contract, prospectus), its primary output is intangible (planning, advice, negotiation), customised to each client and cannot be inventoried (S.S. Samuelson, 1989).

Law firms have been undergoing changes in both their internal and external environment. Markets have become increasingly competitive causing greater pressure for improved development of administrative structures and more sophisticated management. As far back as 1989, S.S. Samuelson was already saying that the fragile and delicate structure of a traditional partnership was not enough to cope with the change that was taking place. Law firms recognise the need for more rational structures, but there is still a long way to go.

Over the last years, PSFs are internationally at a growth inflection point, facing increasingly demanding clients and the consequent pressures to reduce prices and expand service value. Client dissatisfaction with respect to legal advisory

services is clear due to stagnant growth in demand for legal services worldwide (between negative 4% and positive 6%), declining lawyer productivity (from 134 to 122 billable hours) and reduced collection realisation rates (from 94.6 to 89.1%) (Georgetown Law and Thomson Reuters Legal Executive Institute, 2017).

For professional service firms, particularly law firms, there is a need for change how they operate, specifically the form of value-based billing structures (from conventional billable hourly rates to alternative fee arrangements); client referral for unbundled services (leading to sporadic client-firm relationships); and increasing segmentation in the legal services market (widening performance differences between successful and unsuccessful law firms) (Deloitte, 2016). All these developments are forcing these PFSs to transform their conventional methods of operation and improve the quality of their service processes and client-client interactions.

In a study based on evidence from a specific scenario in a law firm, Lewis, and Brown (2012) highlighted that in PSFs the professional-client exchange is asymmetric and requires a varying degree of customisation in designing processes for different clients; there are fewer variables involved in the processes, creating an opportunity for commoditisation.

The efficiency of a company is directly linked to the quality of its processes and its capacity to create value for the business so many law firms are now considering taking advantage of legal tech and implementing more efforts to digitalize more of how everyday work is done.

Law firms are increasingly turning to the power of Business Process Management (BPM) to improve efficiency and performance, standardize the business process, speed up firm growth and enhance and improve the quality of service delivered. It also allows the company to obtain accurate information in databases leading to cost savings.

Chapter 2

2.1 Research Design

This study aims to evaluate and understand how managers will adapt management control systems in legal firms, with a focus on innovation and adaptation to the demands experienced in today's business reality. Further, in the light of the literature review, a comparison is made and additionally, some improvements are suggested.

The following overarching research question is investigated:

How the under-study company's MCS compares with other Portuguese law firms, in a global context where law firms are increasingly seeking for flexibility, innovation, and creativity?

2.2 Methodology

The literature review elucidates concepts and theories related to management control systems, their relationship with ERP, with special emphasis on professional service companies, more specifically, law firms.

To answer this research question and meet its objectives, the type of methodology chosen in this research work follows with a qualitative approach, which is based on an in-depth case study, allowing to obtain a holistic view of complex social phenomena and the most relevant specificities (Yin, 2009). The internship allows to explore a real-life multiple bounded systems over time, through detailed in-depth data collection, offering opportunities to explore and understand practices and actions within the legal industry.

The case, unit of analysis, that will be studied is the management control department of a Portuguese law firm. To guarantee and protect the identity of the host company, the name will be omitted.

To obtain an in-depth knowledge, and detailed analytical data of the case study, a combination of different direct sources of information were used, such as observations, testimonies from employees, reports, accounts, and questionnaires. Therefore, to address the purpose of this study, observations, interview with the general manager of the company, questionnaires, and reports, were used as source of evidence. Collecting data through observation allowed me to develop a deeper understanding of the legal industry, the management control systems within the company, and the interaction between both.

As a comparison to the above, the literature review was also an important tool in the methodology, to define the state of the art among law firms. As a way of validating my understandings, the research was subjected to a review by the General Manager of the company.

Chapter 3

As part of the master's in Business Economics at Católica Porto Business School, I've completed a curricular internship in a Portuguese law firm, between September until February 2022, on the Management Control department.

The first part of this chapter describes the company and its organisational model and operations cycle. Following, the management control tools and software most used by this law firm are mentioned. Finally, I will describe all the activities developed during the internship.

3.1 The Portuguese Law Firm

The company where I performed my internship, is a traditional law firm, well known for its excellence, technical rigour, and great capacity for innovation. It has 68 lawyers and 20 partners (excluding trainees), a total of 88 professionals working in different practice areas. To provide a comprehensive service, the firm is organised into departments, all of which include more than one partner, various associates, and trainee lawyers.

This law firm has a very complex structure, with 15 different practice areas, broad and diverse, presented as follows:

- Business Recovery and Insolvency
- Commercial, Corporate and M&A
- Criminal Law, Misdemeanour and Compliance
- Digital, Privacy and Cybersecurity
- Energy and Natural Resources
- Environment and Climate Change

- European Law and Competition
- Finance, Projects, and Capital Markets
- Intellectual Property
- Labour and Social security
- Litigation and Arbitration
- Maritime Law and the Economy of the Sea
- Public Administration and Public Procurement
- Real Estate, Construction and Urban Planning
- Tax

The company operates in different types of industries, such as agriculture, aviation, transports and infrastructures, banking and financial institutions, culture and education, distribution and retail, energy and natural resources, family-owned businesses & private clients, foundations and associations, healthcare and pharmaceuticals, hotels, travel and leisure, industrials, insurance and pension funds, private equity & venture capital, public sector, real estate, planning and construction, TMT (technology, media, and telecommunications), Water and Waste Management.

The firm provides legal services to national and international clients. It helps national companies during their internationalisation phase and supports the establishment of foreign companies in Portugal. As a consequence of internationalisation, multidisciplinary work groups were created, whose aim is to bring the firm closer to its worldwide clients.

To respond efficiently to international openness, growth in scale, digitalisation, sophistication of services, developments in legal departments, the company has been making relevant efforts mainly under the technological domain.

3.1.1 Commercial and production operations cycle

Understanding how company's practices are positioned in the business cycle and what that means for investment, divestment and management is critical when making strategic decisions.

Starting with the proposal to a client, the cycle develops with the follow-up of the proposal and its revision. The subsequent phase refers to compliance, where it is important to understand if there is any conflict so that the client can then be opened in the system. Then all the legal work is carried out and, consequently, the respective invoicing and collection. Finally, an assessment is made of profitability, satisfaction, and resources. Once completed, the commercial phase begins, highlighting the development and the business model to be able to start a new cycle and make a proposal again to a new client.

Companies should focus on improving quality, reducing cycle times, and improving companies' responsiveness to clients' requests. Doing these accomplishments, would lead naturally to improved financial performance. Incentives are important, but so also are information, communication, and alignment. Emerging technologies will lead to a great transformation, and companies should prepare their business models to turn this development into opportunity(Ulas Akkucuk, 2019).

3.1.2 Company's Management Control Systems

As the literature review addresses, management control mechanisms should be used interactively. According to Kim Langfield-smith Mona, interactive controls force personal involvement, intimacy with issues and commitment which guides the formal strategy-making process.

The law firm has been developing different platforms and software that are interconnected, creating a powerful management control mechanism, capable of meeting the demands of the current market.

To stay ahead of competition, the company implemented an integrated solution to help managing legal practice and maximize the profits. The company has adopted an ERP (Enterprise Resource Planning System) forensic office management programme, with the ability to respond to the needs of both legal work and office management.

The company will be very flexible and competitive when defining fee agreements with clients, through the wide variety of model combinations that exist in this ERP. The system helps the employees to understand and centralize the planning process, decision-making and effective communication within the organization.

The company's accounting is done on a different ERP. The company holds an accounting central management system that increases productivity through hybrid management software that promotes integration between the Cloud and installed solutions. Its technology is innovative, with faster operations, more accurate data, and more productive teams. With this accounting system, accounting operations are faster, with greater speed and accuracy regarding tax

issues because it has a quick response to the demands of legislation and tax regulations. It rationalises the entire accounting process: from the registration of documents to budget management, and from the drawing up of accounting plans by financial year to the calculation of profits.

Following, to allow the implementation of workflows in the company, this firm implemented a BPM (Business Process Management) platform, adapting to the requirements of compliance and information security under the ISO 27001¹ standard. This platform aligns the entire organisation in the fulfilment of processes, highlighting as examples, the response to a customer acquisition process, the entry of a lawyer, the verification of conflicts, client or files' opening with ERP integration, knowledge of the client (KYC), among others.

This platform is responsible for following a process that incorporates different phases (people, teams, and decisions) always in compliance with the company's rules.

The BPM platform used by the company can be integrated with any other platform, however, already has pre-defined integrations with certain platforms on the same technology provider and certain databases. Properly implemented, it can impact a service industry firm's performance through increased revenue, cost reduction, cycle-time improvement, and increased customer satisfaction.

To have an overview of the most relevant business indicators, in an accessible and quality manner, the company adopted a Business Intelligence platform. It allows the capture of information from different sources, providing relevant insights about the users' activity, and to understand any possible deviations from company regulations.

The security model is adapted to the structure of a law firm, having native accesses for partners, associates, client manager, team, or lawyer. The platform

¹ ISO/IEC 27001:2013 (also known as ISO 27001) is the international standard for information security. It sets out the specification for an information security management system (ISMS).

enables the provision of additional indicators in accordance with company's particular needs.

The production of this law firm is measured from different perspectives, not only based on invoiced volumes or hours produced, but also through a set of indicators of considerable complexity, namely production or invoicing efficiencies, or even cancellation inefficiencies, calculated at the time of production of the final accounts of the clients. The registration or invoicing deadlines are also elements to be taken into consideration, since they should be the focus of policies to improve indicators, which condition the performance and the final result of the lawyers and the organisations in which they operate.

It has an Office365 authentication, being available in any fixed or mobile device with a browser. This way, whether on the office desktop or on the way to a meeting with a client, it is possible to consult the most relevant indicators for each situation. The paradigm for lawyers is mobility, and in this sense, this platform is accessed from any fixed or mobile device, allowing access to relevant information for decision making at any time and in any context.

One of the big issues professional service firms face, is how to set the price for the services provided. This process is often done manually or by estimation, leading to inaccuracies (Løwendahl, 2005). This law firm has adopted a software that helps accurately obtain and compare efforts, pricing and resource options promoting transparency and predictability for clients. This analysis is done through AI-based technology, which automatically analyses all past engagements for shared characteristics to obtain data-validated information that can be used to improve pricing strategies. In addition to this, this software can dramatically reduce the gap between time worked and payment received, by reducing write-offs, customer queries and e-billing rejections, as the time recording is automatically integrated with customer billing terms.

As an organisation that operates on a knowledge production basis, it is necessary to have a software that activates expertise to create value. The firm adopted a Matter Oriented document management system that empowers knowledge professionals to deliver better business outcomes, with a combination of automation, powerful search, enhanced visibility, and collaboration.

For instance, the software suggests which client folder and files it should be filled in, when sending an email. To do so, the mechanism uses a powerful indexer, developed using RAVN's artificial intelligence algorithms. This way the effort is not only reduced at the time of archiving, but also when searching for a specific email. Its structure is organised in an intuitive way, being of very quick adoption when compared to the traditional system of folders on the computer, which typically grow in an unstructured way. In addition to these benefits, there is the ability to create versions, control access and audit access if there is no need-to-know basis policy. The way to identify the document is no longer its name, which is limited, since it is possible to associate several metadata to the document (additional information in the document). The search can be extended by placing multiple criteria, such as dates, authors, folders, contents, among many others, avoiding endless lists of results.

Considering security and access audit, this software can be integrated with the Performance Management System (PMS), enabling the creation of the client and folder when it is created on the management platform. This creation can include the application of security policies to folders, which limit access or editing of documents. In addition, when each document is opened, it is possible to verify its activity, from the various versions or accesses, or who accessed it and when.

A recent version of this software has a common interface for computers or mobile devices, whether a smartphone or tablet, which has specific and adapted applications, giving a greater freedom to the user.

All the documents are now shared via a secure, cloud-based platform that has the most advanced security certifications. It offers industry security with seamless integration with Microsoft Outlook, so secure file sharing is easy and accessible without compromising security and policy for business customers. It is not only about obtaining and using data, but also about protecting it.

In addition, to all these systems, the company also has a drive, similar to a simple shared network folder in Windows Explorer, which allows any employee to store, search and retrieve documents without any training or workflow interruption. It can be used in offline mode, with automatic synchronisation once connected.

3.2 Internship

Having the opportunity to do an internship in this company, in the management control department, allowed me to follow the development of the practices and tools that were being incorporated in the organization.

The first two months were months of introduction not only to the company but also to the legal services' industry. To better understand the industry, I have made a survey of the most commonly used Key Performance Indicators (KPI's).

In the following two months, the internship tasks were more focused on the implementation and development of the Business Intelligence and Business Process Management tools. The selected KPIs were then integrated into the artificial intelligence platform, providing relevant information for the industry through dashboards. The final phase of the internship included the redesign and implementation of the reporting model.

To select important indicators for the company, I took into consideration some important aspects. For a sustainable regular use, the selection of KPI's was limited, as too many and too complex KPI's could be time- and resource-consuming. To guarantee the completeness of the data, the information was recorded carefully in the respective software, in particular the ERP, and the time entry and time capture platform. In this way, the data was reliable and structured, guaranteeing its completeness. The systematic use of KPI's is essential as its value is almost completely derived from their consistent use, analysis, and scrutiny.

In the firm, although revenue growth correlates with an increase in the number of lawyers and cases worked by each firm, this is currently not so linear, translating into a disproportion. Other factors are contributing to the growth of this firm and need to be analysed. Data from accounting and other innovative platforms and software must be gathered and input into a tool (Business Intelligence Platform) that produces the information and related calculations in the form of KPI's. Having this dashboard ensures that there is clarity surrounding what information we want to see daily, weekly, and monthly and provides a clear presentation of the information that should be focused to drive the success of the company. The dashboards that result from KPIs shown in the platform are simple in design, easy to update and accessible.

Following this statement, the indicators selected were the following:

$$\text{Utilization rate} = \frac{\text{Billable time recorded}}{\text{Total hours worked}}$$

With the utilization rate we'll be able to see if lawyers are tracking their time properly, who's spending more time on administrative tasks and whether work

is being done efficiently. Analysing this KPI allow us to increase efficiency and improve revenue. Is instrumental in understanding lawyer’s productivity as it measures how much time is spent on work that is billable to clients. For maximum productivity, the goal should be as close to 100 percent as possible utilization rate. To measure performance most effectively, utilization should be tracked on a monthly, quarterly, semi-annually, and yearly basis, allowing the law firm management to analyse trends over time, determining the pricing strategy and calculate the gross margin.

$$\text{Realization rate} = \frac{\text{Hours invoiced}}{\text{Billable Hours worked on a case}}$$

This indicator measures the amount that a firm invoices, compared to the amount of billable work performed at a law firm.

$$\text{Collection rate} = \frac{\text{N}^{\circ} \text{ of hours collected}}{\text{N}^{\circ} \text{ of hours invoiced}}$$

Collection rate measures the amount that the firm collects compared to the amount invoiced at the law firm. According to Legal Trends Report (2018) the most common reasons for lawyers discounting billable work are empathy for the client, the client’s ability to pay, or the belief that too much time was tracked.

Both realization and collection metrics assess how much value a firm brings in, based on the amount of work performed. If realization and collection rate are high, it means that the firm is getting a high work performance.

$$\text{Average Collection period} = \frac{\text{Accounts Receivable Balance}}{\text{Total Net Sales}} \times 365$$

It refers to the time it takes, on average, for the company to receive payments it is owed from clients. There are some advantages in taking into consideration this metric such as helping the firm monitor A/R efficiency, allows to compare collection periods with competitors and the firm can better plan for future expenses.

Every lawyer and law practice owner understands that there will almost certainly be some percentage of their billed hours that are late being paid, or in some cases, never paid at all. The reality is, these late and non-payments can have a huge impact on a firm's short and long-term profitability.

$$\text{Leverage} = \frac{N^{\circ} \text{ of associates}}{N^{\circ} \text{ of partners}}$$

Leverage in a law firm refers to the ratio of associate hours to partner hours. A high leverage means a high number of associate hours for each partner hour, and a low leverage means the opposite. This metric translates into a higher amount of revenue for each partner hour.

The equity partners' human capital investment is leveraged by the non-owner human capital resources (e.g., non-equity partners and associates).

Regarding the implementation and development of the Business Intelligence and Business Process Management tools, in the firm, BPM is more business-process oriented, while BI is more focused on business performance, particularly in non-financial goals. The BPM and BI tools were implemented with the goal of improving performance.

The office has a reporting system, based on the ERP that includes a set of information, which is also reflected in the artificial intelligence platform. The company's reporting system brings together all the information from the management systems implemented, providing complete visibility over the

figures. On the 12th of each month, the financial report for the previous month is presented to the company's management. With the implementation and development of control systems, the financial report presents more detailed and reliable information. All the indicators mentioned above are integrated in this report.

Chapter 4

4.1 Overview of the legal industry in Portugal

Roos, the largest IT company in Portugal dedicated to the legal sector, carried out a questionnaire in 2021 to better understand how the legal sector is characterised in Portugal and what the demands of the professionals in this sector are.

The questionnaire was sent to 22% of the lawyers in Portugal, that is, approximately 10,000 professionals. 904 questionnaires were answered, however only 634 were considered after quality treatment, that is, with quality criteria by the totality of the answers.

The type of sampling is stratified, and the type of scale used is mostly Lickert scale. The sampling platform used is <https://www.surveymonkey.com>, a global leader in survey software.

According to the results of the survey, it is possible to conclude that Portuguese law firms, within the above-mentioned sample, are still in a transitional phase, with a need for change.

58.59% of lawyers say they have never used an office management software (PMS) and only 13.67% say they do.

The same happens with the use of the customer relationship management (CRM) platform, in which 68.36% of respondents say they have never used it.

The percentages continue to increase when analysing the frequency that professionals use business metrics and process platform software (BPM). 82% and 84% of professionals, respectively, state that they have never used this platforms/software.

As for the use of legislation databases, the figures are reversed and only 8% of respondents have never used them. 35% say they always use it and approximately 40% say they often use it.

Despite these results, professionals recognize the importance that these solutions present nowadays. When asked about the importance of knowing the office's production and indicators, 28% said it was not important at all, while the remaining respondents varied their opinions from slightly important to extremely important.

Chapter 5

Discussion

The strong investment in innovative systems adapted for this industry is undoubtedly one of the company's strong points. The control processes and mechanisms are not used separately. Instead, they are combined and used together as an MCS. The interactive management control system that is being developed and optimised in this company aims to respond to the six crucial activities Anthony mentions: planning, coordinating, communicating, deciding, and influencing.

The ERP system adopted by the firm is in line with the definition of management control given by Robert N. Anthony and Vijay Govindarajan (2007), as it links strategic planning with operational control. Improves the ability to monitor and coordinate the activity of the firm, employees, and clients, either through the maps that have already been configured, or in a more dynamic and powerful way using the Business Intelligence platform. It helps the law firm planning, sharing, and making legal decisions, making an integration of all information flows within and across the organisation, as Dechow and Mouritsen (2005) state.

The Business Intelligence platform has an engine that processes the information from the ERP, making more than 64 analysis dimensions available natively, which reduces the implementation time to a few days or weeks. With the BI platform it is possible to find a set of dashboards, designed to meet the company's needs, and helping in the decision-making process.

Understanding the time professionals spend on appointments is critical. This understanding helps define future pricing strategies, allocate resources more wisely, and plan for fixed fee appointments. The Time entry software helps to

quickly and accurately capture work effort and time spent on appointments. It is easy and intuitive for professionals and provides actionable insights for business managers.

With BPM platform, all processes are digitalised, ensuring the entire team's articulation. It has pre-designed processes that can be customised, which simplify and speed up the process. Once a process or standard has been defined in the company, information by all stakeholders is replicated. The platform enforces the standards implemented after a design, collecting the desired information or approvals by all the people, in a sequential, parallel mode, with or without decisions.

In the light of the literature review, in which Robert Simons (1991) identified five different of control systems that managers may choose to use interactively: Programmed management systems, Profit planning systems, Brand revenue budgets, Intelligence systems and Human development systems.

Of the five referenced systems, the company interactively uses mainly three.

We can consider the integrated ERP system for accounting to be a profit planning system. It is presented in a financial language, and encompasses budgets, forecasts, and designs operational and financial strategic plans, by financial year to the calculation of profits. Following, the company also uses programmed management systems, specifically BPM. This platform aligns the whole organisation in the fulfilment of processes and allows the implementation of workflows in the company.

Regarding the Intelligence systems, defined as a management control system that gathers social, political, and technical information, the company uses it interactively with the forensic office management programme. The ERP is Integrated with *CITIUS*, a procedural management application in the Portuguese Judicial Courts, automatically collecting notifications and placing them on the worklist. The accounting ERP system solution automatically completes and

submits charts, templates and official documents as required in markets such as Portugal, Spain, Angola, Cape Verde, and Mozambique. It also keeps the company constantly updated with any changes to tax laws and regulations.

However, there are still some factors that need to be worked on and other points that I consider to be a disadvantage.

Production and invoicing are not immediately linked, which creates a limitation in terms of responding more efficiently to the invoicing process. It hinders complex invoicing processes, meaning that it is not possible to associate immediately a report with an invoice, combine several reports into a single invoice, or even the opposite, that is to combine several invoices into a single report. In the light of the literature review, Hyvonen, T and Scapens & Jazayeri (2003) highlight the importance of ERP from an accounting perspective. This limitation does not eliminate routine accounting work and could lead the company to lose control of value corrections and some inaccuracies at the level of business indicators or distribution of values by lawyers.

There is still a lot of company data that needs to be processed. Departments have been restructured, i.e., new practice areas have emerged, and others have been merged into one. There is still some work to be done and the information needs to be complemented in these management control systems to have a reliable representation of values.

Also mentioned in the literature review, a central concern has been emerging with the relationship customer, as well as managing their past, present, and future expectations. The paradigm of the practice of law has changed substantially over the last decades, as more and more law firms are concerned with being proactive in communicating the legal context in which organisations are inserted.

For this reason, one of the improvements that I suggest would be to integrate CRM Indicators into the BI platform. They are a database developed to organize,

retain, and acquire customers, that provide information together with the alert of the need in the demand for legal services. The principles of their communication are to transmit their message in a way that is understandable to the interested target audience. Integrating them into the BI platform it is thus possible to measure the effort and impact of that same communication, which translates into an increase in business volume and client retention. It will be easier to understand, for example, who contributes contacts to the office or how many entities are created. In this way, the company will be able to be closer to its clients, as it will know more about their needs and the markets in which they operate.

Chapter 6

Conclusion

This study evolved via the curricular internship opportunity on the Management Control department of a Portuguese law firm and aimed to analyse the management control systems that were being implemented, in the light of the literature review.

Bucher et al. (2009) and Gonzalez et al. (2010) concluded that the overall adoption and maturity levels of BPM and BI within companies are significantly behind what would be expected.

The questionnaire that was conducted by ROOX company in 2021 proves these statements, as the same happens in the Portuguese legal industry. Portuguese law firms do not use the potential of BPM and BI in performance management. Although there is already an awareness of the importance of using these platforms, they are not yet used in most offices and therefore managers are not educated in this sense. According to Schläfke et al. (2012) there is an urgency to educate business leaders about the interactivity of BPM and BI.

Despite the national panorama, the company under study is focus on optimising several basic work processes, such as document automation, and complex work processes are being simplified. This law firm has effectively worked to streamline and update its processes and platforms, to ensure that it is responding to the demands of the market. The implemented systems are expected to be easier to adapt, with better solutions and more open integrations. According to Bose (2009), advanced data analysis, framed within the BI platform, allows companies to have a holistic view of their operations and customers.

The use of AI by legal professionals is inevitable due to its competitive, comparative, and differential advantages. The AI tool implemented allow this

law firms to dramatically reduce the labour-hours required for research, enabling the firm to produce services at a lower cost. In addition, time and money can be spent on high value advisory tasks and complex legal matters, generating superior margins, and consequently creating a competitive advantage.

Amongst others, customer integration is a basic element of services since the customer has an active role in the value creation process. To continue to develop this work, and to elevate this office towards the competition in Portugal, the company still has a path to take when it comes to focusing on the client and create a more accessible design combining technical with non-technology solutions. In this way, it will strengthen its ability to become familiar with client preferences and their individual needs, increasing the quality of legal services.

The alignment of BPM and BI, and the integration of data architecture, using BI technology and information systems solves data problems the company was facing, more specifically, poor data quality and inefficiently detailed information considered as the major limitations of manual BPM. The company is centralising data and becoming more digital with the ability to balance past, present and future data through visually pleasing dashboards. The systems also enable the benchmarking of management reporting statistics, and the continuous review of management reporting systems and processes. The firm's management model enables the profitability of each advisory service/proceeding, lawyer, department, sector, and practice area to be always assessed. This investment in information systems has revolutionised the company's management control.

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