**Key skills required for entry-level and mid-level roles in Payroll accounting in Ireland. An exploratory analysis of Small and Medium Enterprises with a primary focus on international markets**

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**This thesis is submitted to the School of Business at the National College of Ireland in partial fulfilment of the requirements for the degree of Master of International Business (2023)**

# Abstract

This study has been developed in an exploratory nature of payroll accounting in Small and Medium Enterprises with a focus on international markets. Its aim is to identify the key skills required in the payroll area and emphasizes the increasing complexity of the payroll regulatory environment, the challenges faced by small and medium organizations in ensuring compliance, and the role of technology in payroll management. This study also discusses the impact of the Covid-19 pandemic on SMEs in Ireland and the changing dynamics of business with the adoption of hybrid working models.

This study provides a concept in payroll accounting which highlights the role of technology and the evolution of payroll systems. It also addresses the importance of legal and regulatory compliance in international payroll processing, emphasizing the need for familiarity with tax regulations and reporting obligations in different countries.

In the findings provided in this study, there was evidence of key skills for an Entry and Mid-level position in Payroll in Ireland.  It highlights the connection between non-technical skills (soft skills) and technical skills (hard skills). Non-technical skills include communication, teamwork, leadership, problem-solving, time and stress management, and ethical and professional values. Technical skills encompass payroll processing, regulatory compliance, financial accounting, and IT skills.

A comprehensive analysis of two primary data collected through digital postings and interview process produces a positive result for the purpose of this study.  The demanding factors in the payroll area are also discussed in the literature review, including the challenges posed by the Covid-19 pandemic, the demand for IT skills in hybrid working models, and the importance of having the right skills and procedures in place to ensure the smooth running of finance departments and employee satisfaction.

Further information explores the role of education in accounting and payroll, highlighting the continuous learning and development required to keep up with governance laws, taxation, and technological advancements. It emphasizes the importance of both technical and non-technical skills in the payroll area, including communication, teamwork, leadership, problem-solving, time and stress management, and ethical and professional values.

# Submission of Thesis and Dissertation

## National College of Ireland
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### *(Thesis/Author Declaration Form)*

**Name:** Yanely Vasquez Diaz_____

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**Degree for which thesis is submitted:** Master of International Business_____

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**Date:** 08th May 2023_____

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[ II ]

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# Chapter I: Introduction

In global business concerns, FDI, external Factors such as competent labour force, innovation, technology, government regulations, and business with foreign trade play a significant role in strategic management (Volverda, et al., 2011), as it seems Ireland has an economic growth due to a sizeable fraction "People Engaged" in Small and Medium Enterprises (SMEs) (CSO, 2022). This study focuses on the means a high commitment in broad terms to, employers, employees, training providers, and entities regulatory. As the Payroll department involves various legal and tax regulations, including labour laws, tax laws, along with financial reporting requirements this forms an important part of the smooth operation and success of the business. This leads to many variants on international accounting and professionals in charge of the operational process for managing services to ensure immediate payment to workforce. Consequently, it matters of future skills and technology for business leaders in an increasingly "challenging labour market" such as hybrid models post-Covid (Osmani, et al., 2020). For managers it is highly crucial to select strategies that are consistent with the company's strengths and market conditions as this can impact in a positive or negative way the cash flow which is critically important for SMEs. With an increased economic activity in SMEs principally, there may be a higher demand for skilled workers. This could lead to increased competition and complexity as more SMEs seek help with payroll and processing (Antoinette, 2023).

## 1    Problem Identified.

This research particularly focuses on the skills necessary to work in the payroll department for SMEs in Ireland, given that the everchanging environment and the necessity to be more aware of adapting new ways of working in businesses are part of the global economy. Demand of "**Skill competencies required for entry-level and mid-level payroll positions for Small and Medium-Sized Businesses"** has been identified as a problem in this research**.** The key skills required for payroll roles in this specific context could help address this skills gap by providing guidance on the skills that individuals need to develop or enhance to excel in these roles.

## 2    Proposed Research.

The proposed research in this study will focus on the gaps and demand of skills required in payroll expectations in the Irish market to propose after all, a successful transition of business and ensure positive outcome in SMEs. Identifying the key critical skills necessary for working in payroll in this context can help ensure that the workforce is equipped with the right skills to meet the market demand and effectively manage payroll operations for international markets. The research question specifically targets SMEs in Ireland, which may have unique payroll requirements and challenges compared to larger companies. Understanding the skills needed for payroll roles in the context of Irish SMEs can provide valuable insights for business operating in this market and help align the skills of the workforce with the specific needs in the local context.

# Chapter II: Literature Review

## 3   Introduction.

This chapter aims to present relevant elements in the payroll area. Antoinette (2023) has bridged some insights in the main subject such as the challenging labour market, increasing and complex payroll regulatory environment with employees working in different locations and also where small and medium organizations may face challenges in ensuring compliance with domestic and non-domestic markets (Insperity, 2022). Understanding the key skills necessary for working in the payroll department in entry-level and mid-level roles in the context of international SMEs in Ireland is essential for effectively managing payroll operations and ensuring compliance with local regulations in an increasingly globalized business environment. External factors such as technology is playing a significant role in this study since it is part of the accounting progress. The elements provided here are relevant to payroll skills as they emphasise the challenges and opportunities associated with managing the payroll position in Ireland an international accounting context (King & King, 2021) maintaining a market awareness. The researcher will examine scholarly articles, books, reports, and other relevant sources such as Chartered Accountants Ireland (CAI), to identify the key gaps that are critical for successful payroll operations in international SMEs in Ireland. *"Firms are operating at capacity and are making strategic decisions on how best to leverage their payroll practices."* (*Leslie Winner Bolton Director of channel partnerships).* Overall, by synthesizing and analysing the existing literature, this review aims to provide valuable insights for practitioners, researchers, and policymakers interested in the field of international payroll management.

## 4   Small and Medium Enterprises in Ireland.

With the onset of the Covid-19 pandemic the annual report of Health and Safety Authority, (2021) shows many people and business were badly affected specially "Small and Medium Enterprises" (SMEs) worldwide (El-Qadi, et al., 2023) and in order to survive this period many had to cut their workforce or reduce hours (Eurostat Statistics Explained, 2022) and adapt to a new environment and new ways of working (Goverment of Ireland, 2020) to keep the business functioning (Callicott, et al., 2021) (Roux, 2021).

Today in the post Covid world and with the adoption of hybrid working models (Lorca & Belli, 2023) this has changed the dynamics for many companies including SME's. With a reopening of business and growing economy it has increased pressures in many departments and roles within the organisation. In order to understand the current status and according to the (CSO) Central Statistic Office (2023) the growth in the Irish economy in the fourth quarter of 2022 showed Foreign-owned non-financial corporations drive the growth (Jaewon, 2023). The Irish economy grew, as measured by GDP, reaching €130 billion, which was €21 billion (19%) higher than the same period in 2021.

This literature considers SMEs which are determined as Micro (less than 10 persons engaged), Small (between 10 and 49 persons engaged), and Medium enterprises (50 and 249 persons engaged), and highlights the Irish business economy in different sectors. SMEs as a result show that they generate 16.1%, 8.2%, and 10.3% respectively of the total GVA (Gross Value Added) in Ireland (CSO, 2023) with 34.5%(GVA) being attributed to SMEs and 65.5% of total GVA credited to large enterprises.
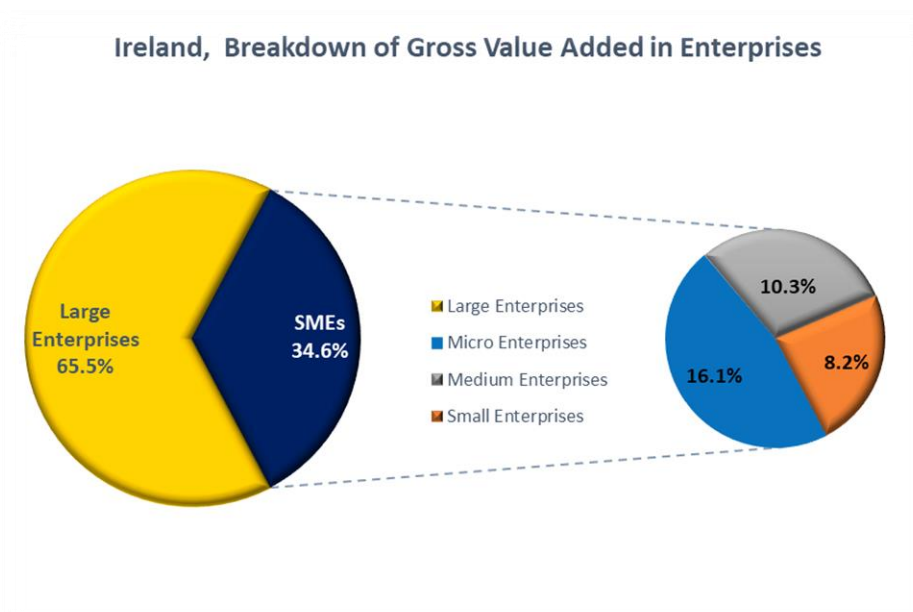


*Figure 1.    Pie of pie chart showing GVA in Enterprises*

SMEs generated 41.9% of total turnover in the Irish economy when large enterprises generated 58.1% as can be seen in Figure 2.

**Percentage Breakdown of Turnover by sizes Enterprises in Ireland**

Large Enterprises 58.1%
SMEs 41.9%

■ Micro Enterprises
■ Medium Enterprises
■ Small Enterprises

12.9%
16.3%
12.7%
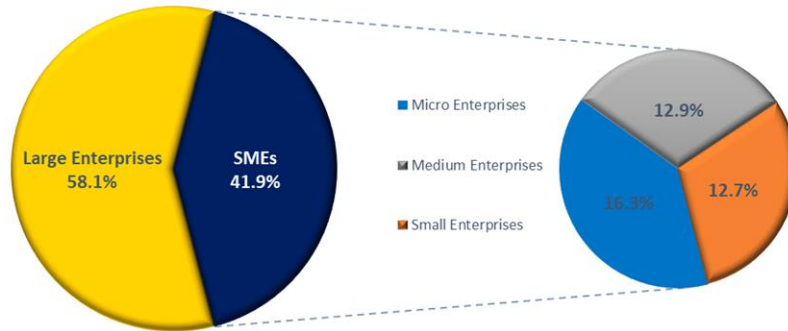
*Figure 2.      Pie of pie chart showing turnover by sizes Enterprises*

This attributed to 31.6% of employment been given by large enterprises in 2020 (CSO, 2023), while SMEs accounted for 68.4% of total employment in Ireland figure 3.



**Percentage Breakdown in Ireland of Persons Working**

Large Enterprises 31.6%
SMEs 68.4%

■ Large Enterprises
■ Micro Enterprises
■ Small Enterprises
■ Medium Enterprises

28.1%
21.5%
18.8%
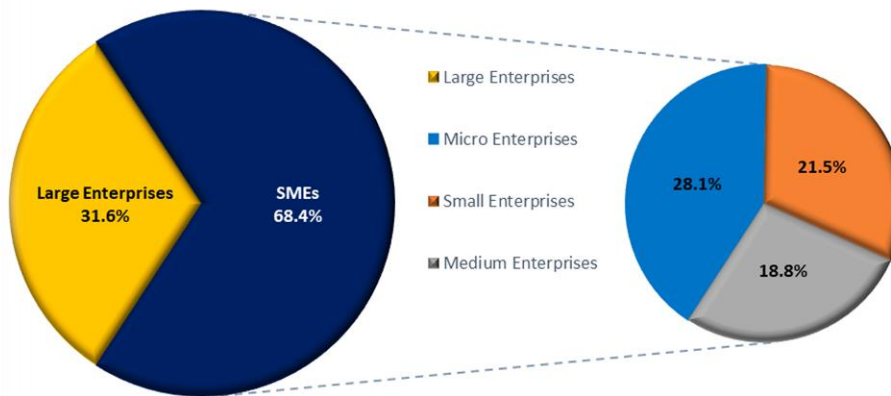
*Figure 3.      Pie of pie chart showing persons working in enterprises*

While this indicates that large enterprises play a significant role in Ireland, SMEs are a crucial part of the overall economy as the majority of people are employed in SMEs in Ireland (CSO, 2022). This highlights the significance and corelation of business employers and employees

and the importance of accounting and payroll be correctly paid and remunerated as other studies have shown (Pavel, 2021).

## 5    Background and Information in Payroll Accounting

As previous studies have shown, accounting and payroll are closely correlated due to their close ties and mutual dependence on one another for accurate financial reporting and decision-making, accounting and payroll are distinct but interdependent tasks.

The history of payroll dates back to ancient times where workers were compensated for their job with goods or currency. With the advent of the Abacus, a tool first used by the Sumerians in the years BC (Omagbon, 2015), also known as a calculating frame, marking the beginning of a primitive technology and the first instrument in use in accounting also Indicating the development of hard skills in accounting and payroll (Fleischman & Radcliffe, 2005). However, with its evolution from simple counting and ledger entries to the complex systems used today being shaped by numerous factors such as advances in technology, changing business practices, and government regulations. Omagbon (2015) article provides a historical perspective on payroll accounting, tracing its development from its earliest days to the present. The author notes that technology has played a key role in shaping payroll accounting, with innovations such as punch card machines and computers revolutionizing the way payroll data is processed. Omagbon (2015) article focuses specifically on the history of payroll and payroll taxes in the United States, highlighting the evolution of payroll systems from the colonial era to the present day. The article notes that payroll taxes have always been a contentious issue, with employers and employees frequently seeking to avoid or evade them and discusses the impact of various tax laws and regulations on payroll. These articles provide valuable insights into the history of payroll and its ongoing evolution.

### 5.1    Legal and regulatory compliance

Additional studies in present times show international payroll processing involves understanding tax regulations, compliance requirements, and reporting obligations in different countries (ACCA, 2016). Familiarity with international tax treaties, social security agreements, and other relevant international tax laws is crucial for ensuring compliance and avoiding penalties or situations involving fair pay, as Bajaj (2021) brings some insights about the effect of good renunaration and retention of talent which seems to have strong influence

in productivity for the company.   In addition some other studies have shown that reasonability comes as part of remuneration, where reasonability forms part of an employee's fair-play  remuneration for positive inputs or activities for the business (Pavel, 2021).

However, these further impress the need of knowledge in international payroll-related compliance and reporting requirements for SMEs with a primary focus on international markets as being essential, as similarly noted by Alexander (2023), the complexity and regulatory compliance is fast becoming one of the increasing factors facing business.

## 6    Education in accounting.

What does education mean in payroll accounting?  For payroll and other areas related to this, means a continuous flow of information which allows an individual to obtain knowledge and understanding of a broad range of  skills (Buckley & Caple, 2009), this retained knowledge gives the individual perception along with the ability to analyse and problem solve issues in the payroll area (Banasik, 2021).  Therefore, most of the studies focused on educational skills when it comes to payroll, such as King and king (2021) in which highlights the demand of skills from an academic perspective but does not focus on Laboral skills.

Continuous education in organisations can have a greater effect on the individuals within which leads to a higher profile for the company,  contrary to a poor performance (Arquero, et al., 2022), however, Senge (2006) has described the organization as an expanding entity creating its own future which indicates the importance of strategies in business.   Essential learning is an intrinsic part of payroll and requires constant abilities to keep in line with governance laws and taxation along with advances of systems and technologies. The study by Osmani, et al. (2020) recognises the necessity for IT skills in the new Hybrid working model in business.  However, people continue to gain education over their lifetime (Glaser, 1962), it can be described as the overall result of bringing together training and abilities, a combination that allows for greater skills development of the person. (Beverley & Natoli, 2015).

## 7    Demanding Factors in the Payroll Area

Many factors can impact payroll in SMEs, with growth, trade relations, and overall business environments being some of these. "The Covid-19 Pandemic" has brought many challenges in leadership of different business sectors (Simon, 2021) and concerns in new work situations.

As Bajaj (2021) argues, also Osmani, et al. (2020) who considers the demand of IT skills in the new Hybrid working models in their study.

Leaving aside the financers, directors, and other leaderships in top management of work teams, the "Accounting Area" and "Payroll Staff" are equally important in Entry-level and Mid-level positions as for instance King & King (2021) highlights the demand of skills in accounting students which show these constantly participate in this change of working environment, innovation and technology, payroll professionals must also implement actions for their well-being, maximizing their effectiveness, efficiency and experience at work (Beverley & Natoli, 2015).

The necessity to have the right skills and procedures in place are of the utmost importance to ensure the smooth running of finance departments and the satisfaction of employees in the company (Uma, 2021). It is equally important for the company where there are many departments working together to produce a product or service. The flow through these departments needs to be smooth and uninterrupted to ensure the success of the company and development of the business. Without the proper skill sets and procedures in place there can be many thoughtful issues or interruptions between departments, not to mention unsatisfied employees that will impede the progress of the company and disrupt the flow of the production or service (Bajaj, 2021).

## 8    Support areas of this research

This section explores support areas in relationship of payroll management, and  summaries the "Technical skills" and "Non-technical skills" including "Technological skill", brought from different authors perspectives in accounting and payroll area such as (King & King, 2021) (Arquero, et al., 2022) (Beverley & Natoli, 2015)

## 8.1 Non-Technical skills

Non-technical skills are also considered as "Soft Skills" and includes "Communication skills", "Teamwork skills", "Leadership and management skills", "Problem solving skill", "Time and stress management", and "Ethical and professional values", these will be explained in the paragraphs below.

### 8.1.1 Communication skills

Communication is the sending and receiving of messages, but also involves the interpretation of those messages and the creation of common understanding between the communicators, an effective communication involves a range of skills including verbal and nonverbal communication, active listening, and the ability to adapt communication styles to different situations and contexts.

### 8.1.2 Teamwork skills

The ability to collaborate with others to accomplish a common goal is referred to as teamwork skill. Teamwork is described as a dynamic process involving more than one individual interacting interdependently to achieve a common purpose and perceives themselves and others as a group with commitment and shared approach working together. A variety of abilities including, co-operation, co-ordination, and conflict resolution are necessary for effective teamwork along with the capacity to adjust to shifting conditions and make the most of the unique talents of each team member, it also entails a shared understanding of roles, responsibilities, and expectations among team members.

### 8.1.3 Leadership and management skills

The ability to direct and encourage people or teams toward the accomplishment of set goals or objectives is referred to as leadership and management skills. Although the terms leadership and management are frequently used interchangeably, they are two different ideas, while Management is concerned with organizing, co-ordinating, and planning resources to achieve specific outcomes, Leadership on the other hand, typically focuses on inspiring and motivating others to work toward a common vision or mission.

### 8.1.4 Problem solving skills.

The ability to identify and rectify situations that prevent progress in the business can be defined as problem solving, this includes analysing the companies' issues and finding a creative solution that fits with the work schedule of the business. This is often attributed to the ability to think outside the box to overcome obstacles and generate innovative new ideas.

### 8.1.5 Time and stress management

The abilities involved in "Time and Stress Management" have an important role to play in any business. "Stress Management" is often categorised as part of "Time Management" as they can be closely related in a business sense when organising work schedules to meet deadlines,

it is often a necessary part of the day-to-day processes to ensure the smooth running of the company.

### 8.1.6 Ethical and professional values

In a general context "Ethical and Professional Values skill" is a critical part of any professional where ethical behaviour must be demonstrated at all levels of the organization. These include strong moral principles and being reliable, dependable, and trustworthy in all business dealings and maintaining confidentiality when required. Adhering to applicable laws, regulations, and industry standards and ensuring that business practices are lawful and ethical.

### 8.2 Technical skills

Technical skills are also considered as "Hard Skills" , technical skills in payroll accounting, refer to the specific knowledge, expertise, and abilities required to manage and process payroll accurately and efficiently, it involves many skills that are challenging and changing over time such as payroll software, compliance, and tax regulations, some of these are recoginsed in the below catagories and explained in the paragraphs that follow:

- Payroll Processing
- Regulatory Compliance
- Financial Accounting
- IT skills (Softwares)

### 8.2.1 Payroll Processing

Payroll processing can be considered having a proficiency in calculating and processing employee salaries, wages, bonuses, and benefits, including deductions for taxes, retirement plans, and other withholdings is an intrinsic part of the accounting and payroll department.

### 8.2.2 Regulatory Compliance

Compliance and knowledge in relevant payroll and accounting laws is considered as part of Regulatory compliance, which includes employment laws and tax regulations to ensure accurate calculations and compliance with accounting regulations.

### 8.2.3 Financial Accounting

Financial accounting is understanding the fundamental principles, concepts, and practices of accounting to accurately record financial transactions, this includes preparing financial statements, and maintaining accurate and up-to-date financial records, including recording transactions, reconciling accounts, and organizing financial data for reporting purposes.

### 8.2.4 IT skills (Softwares)

IT skills can be considered as having a software proficiency and familiarity with accounting software and payroll systems, this can also be identified as part of the process to efficiently manage financial data, payroll, and generate reports in the financial area. Some of the systems include software payroll packages as presented below:

- Microsoft Packages
- QuickBooks
- Sage
- Sap
- NetSuite
- Twinfield

These are some of the most recognised European and Worldwide used software packages in the accounting and payroll area. These form part of the essential skills necessary which can improve the experience and abilities of the individual and their work. Knowledge of system integrations, data management, and reporting capabilities in an international payroll context is important for any roles or position in the payroll department. However, many studies such as Osmani, et al. (2020) have shown that abilities in technology are critically required in the accounting area, technological skills give many advantages in work efficiency, Osmani argues in his study the lack of necessary computing skills required in most graduates, also in the analysis of Banasik (2021), digital technology skills were not adopted as a priority competency. In contrast a study from Arquero, et al. (2022) of accounting employers versus students' perspective, the difference in confidence of "employers versus students" shows the lack of ability the students had in areas of communication and time management and in the same study by Arquero, In other non-technical skills, the results show a high percentage difference in the overconfidence of students for example in "Team working skills" leading them to be less motivated to learn and improve in this area. However, as these attributes belongs to Non-

Technical Skills, he has identified these as a priority over technical skills. Likewise, skills of this nature complement technical abilities and expertise which together contribute to professional success.

## 9    Gaps in existing research

The existing literature on this research has primarily focused on the payroll department in SMEs with international activities, leaving significant gaps since there are very few studies about the payroll area and its relevance in SMEs in Ireland. For instance, SMEs with a primary focus on international markets may prioritize or have unique payroll requirements due to the complexities of processing international payroll, including tax regulations, currency exchange, and compliance with international labour laws.

Having lived through a competitive world, it can be said payroll departments have a critical position in the criteria of employee skills and remuneration (Pavel, 2021), which is an influential factor in the human capital and talent acquisition that matter in today's world. Hiring, contracting, and retaining talent (Bajaj, 2021) in an international context requires expertise in managing payroll and HR processes. Understanding the skills necessary for positions in the payroll department (Beverley & Natoli, 2015) is important for employee recruiting and developing talent, as it is similar for SMEs with international operations. This includes identifying key skills, competencies, and qualifications needed for payroll roles in an international context. However, the limitations of existing research in the literature review suggest that there is a need for further research to evaluate the effectiveness of different skills and maybe in different contexts of the main problem presented in this chapter.

Furthermore, some studies recognise the importance of the payroll area in small and medium companies and its significance to resolve conflicts, and similarly there are gaps in this area of research. Likewise, payroll dynamics and technology are critical skills to meet effectively to manage processes in the international accounting area (Osmani, et al., 2020). Accountants may have a stronger understanding of financial regulations, while HR professionals may be more knowledgeable about labour laws and HR compliance. Close collaboration is necessary to ensure compliance with all relevant regulations. However, payroll is an important area for any business, and this research intends to focus specifically on entry-level and mid-level roles in the payroll department (King & King, 2021). In order to Identify the key skills for these roles, it can help employers understand the skill sets needed at different levels of experience and

guide individuals in their career development path within the payroll department (Osmani, et al., 2020).

## 10   Conclusion

Overall payroll is a function that all business must carry out effectively and accurately to pay their employees, it is not only a calculation of hours worked and taxes due to reach a final figure to be paid to the employee it is also part of ethical business practices.  The continuous change and use of new technological tools have brought challenges to payroll professionals, including environmental  factors such as Covid-19, where many companies in Ireland during the pandemic demonstrated that it is possible to work from home (Al-Habaibeh, et al., 2021), when it was previously considered a non-functional method. One of the reasons is that it was once thought that workers were less productive if they were not under the direction of a position, a manager, or a supervisor, but the events of the past two years have forced businesses to adjust (Bajaj, 2021)to this abrupt change, and they have been improving this method of operation throughout the pandemic.  This literature review has contributed to understanding the payroll area and this research aims to identify the specific skills required for the payroll department to function effectively in the international business context. This literature presents both technical and non-technical skills which are essential for success in the payroll and accounting field.  (Osmani, et al., 2020) Technical skills provide the necessary expertise to carry out specific tasks accurately and efficiently, while non-technical skills enable professionals to communicate effectively, solve problems, and work collectively.

In order to fill the gap in the study of this research, the overview in this literature suggests deep research of the key skills in the payroll area is required and the aims and research question, will be presented in the next chapter three.

# Chapter III:    Research question

## 11  Introduction

In this section the researcher intends to resolve a research question, which its aim is to contribute to the understanding of the unique challenges facing SMEs in managing their payroll processes, providing, and emphasizing the critical skill requirements of vacancies in the payroll area for Irish companies with foreign markets abroad.

Therefore, the research question for this study is: **"What are the key skills necessary for working in the payroll department in entry-level and mid-level roles in Ireland for Small and Medium companies with a primary focus on international markets"** in the context of international business, by answering this question this study aims to provide insights into the skills required for successful positions in payroll of small and medium Irish enterprises  and inform any individual, employees or institutions how to align their skills and development efforts with the current and changing needs of people and the global market.

## 12   Research objectives

**Objective 1:** Identify payroll skill and requirements in Ireland for entry and mid-level positions in SMEs through digital job postings and highlight the results with common requirements. This can be done through online job postings, industry associations, and networking with professionals in the payroll field.

**Objective 2:** Identify Irish SMEs which possess a payroll department, with relationships in foreign markets and explore deep the payroll area through interviews of companies with their own payroll department.

**Objective 3:** Analyse the identified job posting skills against the interview findings in Ireland for payroll professionals to determine if there is a gap that needs to be addressed and use this information for final data collecting.

**Objective 4:** Develop a dynamic list of key skills necessary for working in the payroll department in entry and mid-level roles in Irish SMEs with foreign markets based on the findings from the literature review, interviews, and job posting analysis.

**Objective 5:** Provide recommendations of the necessary skills currently required among entry-level and mid-level payroll professionals, in SMEs with relationship in foreign market.

## 13  Conclusion

In this work, with the established objectives of the research question, according to , Mark Saunders, Philip Lewis, and Adrian Thornhill (2016) the focus on the question seeks to identify the key skills necessary for working in the payroll department, as Clough and Nutbrown (2012) referred the direction of the question requires exploring the data, and Pejic-Bacha, et al. (2020) has demonstrated collecting information through digital means and transforming the data to make it useful for relevant purposes, however this study aims to understand as well through experiences and perspectives of people working in the field of small and medium-sized companies with a primary focus on international markets, this suggests a need for exploratory research that can help to uncover insights and patterns that may not be readily apparent to our main problem in the lack of current skills in the area of payroll, therefore a research methodology will achieve an effective, accurate development to give a validity and reliability answer to this question.

# Chapter IV:        Research methodology

## 14   Introduction

This chapter explains what is intended to be done in relation to the research question and aims.  The topic will be developed with the information collected using the Saunders (2009) onion model.  The methods used to obtain an accurate information regarded to Walle (2015) and Sharma (2015) is of great significance on this research and any information collected must be carried out with commitment, reliability, attention to detail with an appropriate framework based in Bryman & Bell (2015) and (Bryman & Hardy, 2004) this will provide the study with a structured approach and new knowledge to develop information in the direction the research methodology needs to take.

## 15   Exploring Research Options

This section presents veridical and valid choices for achieving the study aims. Bringing the research question on board: "What are the key skills necessary for working in the payroll department in entry-level and mid-level roles in Ireland for Small and medium companies with a primary focus on international markets". This research can be developed according to Research Saunders Onion (2016) based on different research philosophical assumptions, see Figure below.
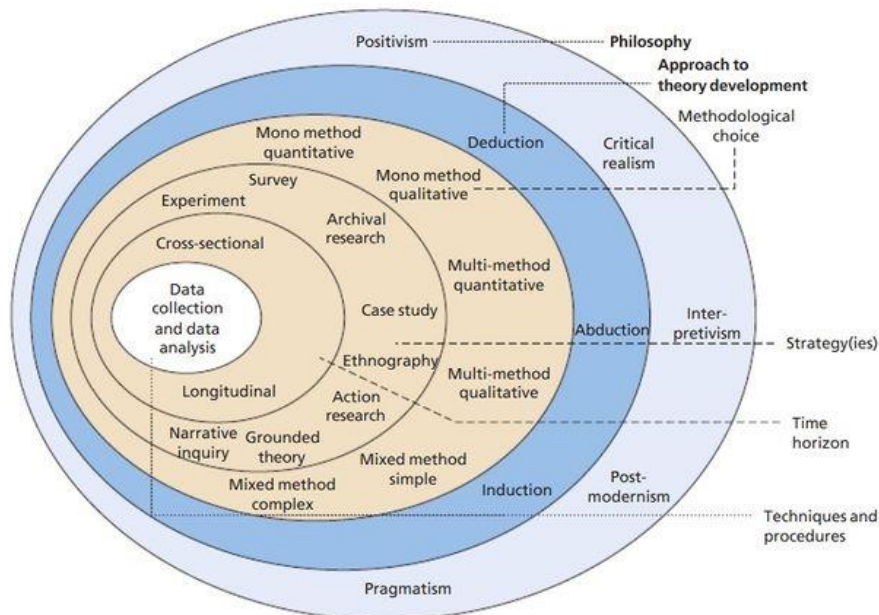


*Figure 4.     The Research 'Onion'*
*Source: © 2015 Mark Saunders, Philip Lewis, and Adrian Thornhill.*

The following table shows on the left side the steps of Saunders' onion (2016), while on the right side only the most relevant elements for the design of this research methodology were included.

| METHODOLOGY PROCESS | RESEARCH DESIGN OPTIONS |
|---|---|
| **Philosophy** | **Positivism / Critical Realist / Interpretivism** |
| **Assumptions:** | Axiology / Ontology / Epistemology |
| **Multidimensional set of continua:** | Objectivism / Subjectivism |
| **Approach** | Deduction / Abduction / Induction |
| **Method choice** | Qualitative / Quantitative / Mixed method |
| **Strategy** | Non-random/ Digital content / Interview |
| **Time horizon** | Cross-Sectional |
| **Techniques and procedure** | Data Collections and Data Analysis |

*Table 1.Content "Exploring research options", following Saunders et al. (2016) Research Onion.*

## 16 Philosophies (Positivist, Critical Realist and Interpretivism)

**Positivist**

The research question can be approached from a positivist perspective (Saunders, et al., 2016), assuming that there is a single, universal set of key skills that can be identified and measured objectively. This would involve using deductive reasoning to formulate hypotheses and test them against empirical data and using statistical analysis to draw generalizable conclusions. In the context of this research, a positivist epistemology assumption would emphasize the use of quantitative data and statistical analysis to identify the key skills necessary for working in the payroll department. For example, a researcher might conduct surveys or collect data on job postings and job descriptions from SMEs in Ireland's payroll department to identify the most mentioned skills in entry-level and mid-level roles.

**Interpretivism**

This philosophy suggests that knowledge is created through the interpretation of meaning and understanding of human experiences (Saunders, et al., 2016). The research can be approached from an interpretivism philosophy, assuming that skills are socially constructed and subject to interpretation by individuals and groups. This would involve using **inductive** reasoning to generate theories and concepts from the data collected and using **qualitative** analysis (Walle, 2015) techniques such as thematic analysis or grounded theory to identify patterns and meanings in the data. In the context of the research question, an **interpretivist epistemology assumption** would prioritize a deep exploration of the subjective experiences and perspectives of payroll professionals, as well as the social, cultural, and contextual factors that shape the challenging labour market in the payroll department. The researcher may use methods such as in-depth interviews (Quinn, 2015), case studies, or ethnographic research (Saunders, et al., 2016) to uncover the nuanced and multifaceted aspects of the key skills necessary for working in the payroll department in SMEs in Ireland, and how these skills are influenced by the labour market dynamics.

**Critical Realist**

The research question can be approached from a realist perspective (Saunders, et al., 2016), assuming that there is an objective reality of key skills necessary for working in the payroll department, and that these skills can be discovered through empirical research. This would involve using research methods that aim to uncover the underlying reality of skills, and to provide generalizable findings that are applicable beyond the specific context of the research.

## 17  Assumptions (Axiology, Ontology and Epistemology)

Shaping the research method more than one assumption can be take place, as the study aims to identify the key skills required for working in the payroll department while gathering the perspectives of payroll professionals and hiring managers. Considering the following **"Assumptions"** of the research question in the methodology the final design will place the philosophy in this chapter. In the following Figure2 can be seen the relationship of the assumptions and their extremes, this image is presented to explain the work of the researcher and precisely guide the design of the methodology.

| Assumption type | Questions | Continua with two sets of extremes | | |
|---|---|---|---|---|
| | | Objectivism | ⇔ | Subjectivism |
| Ontology | • What is the nature of reality?<br>• What is the world like?<br>• For example:<br>  – What are organisations like?<br>  – What is it like being in organisations?<br>  – What is it like being a manager or being managed? | Real<br>External<br>One true reality (universalism)<br>Granular (things)<br>Order | ⇔<br>⇔<br>⇔<br>⇔<br>⇔ | Nominal/decided by convention<br>Socially constructed<br>Multiple realities (relativism)<br>Flowing (processes)<br>Chaos |
| Epistemology | • How can we know what we know?<br>• What is considered acceptable knowledge?<br>• What constitutes good-quality data?<br>• What kinds of contribution to knowledge can be made? | Adopt assumptions of the natural scientist<br>Facts<br>Numbers<br>Observable phenomena<br>Law-like generalisations | ⇔<br>⇔<br>⇔<br>⇔<br>⇔ | Adopt the assumptions of the arts and humanities<br>Opinions<br>Narratives<br>Attributed meanings<br>Individuals and contexts, specifics |
| Axiology | • What is the role of values in research? How should we treat our own values when we do research?<br>• How should we deal with the values of research participants? | Value-free<br>Detachment | ⇔<br>⇔ | Value-bound<br>Integral and reflexive |

*Figure 5.    Saunders et al. (2016) Philosophy Assumption as a Multidimensional Set of Continua.*

**Axiology assumption**

Axiology primarily deals with the study of values and ethics, whereas the research question provided is focused on identifying key skills required for payroll roles in a specific context (Saunders, et al., 2009). It is always important for the researcher to be mindful of their own values, and assumptions throughout the research process to minimize potential bias and enhance the credibility of the research findings. It encompasses the study of what is considered valuable, how value is determined, and how it is applied in various contexts. Axiology refers to the researcher subjective values and beliefs that may influence the research process. The cultural values of the context being studied, Ireland and its business environment, may also play a role in shaping the research question. Different cultures may have different priorities and values when it comes to payroll skills, which may influence the research question.

However, Saunders et al. (2016) research methodology provided guidance on how to address axiological assumptions in the research process, such as being transparent about the researcher values and potential bias, using appropriate research methods to minimize bias, and ensuring ethical considerations are addressed throughout the research process. The research design and methodology should be robust, transparent, and aligned with established research practices to ensure the reliability and validity of the findings. In the context of the research question, it would be important to consider relevant literature, empirical evidence, and expert opinions to identify and justify the key skills necessary for working in the payroll department in entry-level and mid-level roles in Ireland for small and medium companies with a focus on international markets.

**Ontology assumption**

Ontology is a widely used approach in social science research, it deals with questions of being, existence, and reality (Bryman & Bell, 2015). Ontology, as a philosophical branch, may not have high relevance to the research question in terms of guiding the epistemological stance, research design, or data collection and analysis techniques, on the aims, scope, and context of this research study, if the research question involves investigating the **underlying assumptions or beliefs about the nature of skills or the conceptualization of the payroll department** in the specific context of SMEs, ontological reflections can be more relevant. In such cases, philosophical ontology, could potentially contribute to a deeper understanding of the research question and its implications. Even that Ontology can provide a framework (Saunders, et al., 2016) for analysing the relationships and interactions between different skills and their relevance to working in the payroll department. For instance, it can help identify how certain skills are interconnected and dependent on each other, or how they may interact with other factors such as the company's size, focus on international markets, or the specific roles within the payroll department. Understanding the relationships between skills and their context can provide insights into their significance and application in the research question.

## 18  Extremes of Ontology Assumption (Objectivism and Subjectivism)

**Objectivism.**

Realist ontology assumption: This assumption suggests that there is an objective reality that exists independently of human perception, and that it can be studied and understood (Bryman & Bell, 2015). In the context of the research question, a realist ontology assumption would propose that there are objective key skills that are necessary for working in the payroll department, and that these skills can be identified through **empirical research**. The researcher may aim to uncover the objectively existing key skills through empirical data collection, such as surveys or job postings analysis, and analyse the findings to determine the key skills necessary for entry-level and mid-level roles in the payroll department in SMEs in Ireland.

**Subjectivism**

Social constructivist ontology assumption: This assumption suggests that reality is constructed through social interactions and shared meanings, and that it is subjective and context dependent (Bryman & Bell, 2015). Social constructivist ontology assumption would emphasize that the key skills necessary for working in the payroll department are not fixed but are socially constructed through the perspectives and interpretations of the individuals involved, including employees, employers, and other entities. The researcher may seek to **understand the social and contextual factors** that shape the perceptions and expectations of key skills in the payroll department, and how these factors are influenced by the challenging labour market conditions in Ireland. "Qualitative methods such as **interviews**, **focus groups, or ethnographic research** may be used to explore the subjective meanings and interpretations of key skills among payroll professionals and other relevant entities.

Nominalist ontology assumption: This assumption suggests that reality is a human construct and that concepts and categories, including key skills, are subjective and arbitrary (Saunders, et al., 2016). In the context of the research question, a nominalist ontology assumption would emphasize that the key skills necessary for working in the payroll department are not objectively defined but are socially and contextually constructed. The researcher may adopt a critical and reflexive approach to explore the power dynamics, discourses, and ideologies that influence the definition and recognition of key skills in the payroll department, and how these dynamics are shaped by the challenging labour market conditions. Critical analysis,

reflexive interviews, or participatory research methods may be used to examine the subjective nature of key skills in the payroll department and their relationship with the challenging labour market.

**Epistemology assumption**

Epistemology it seeks to find the truth about the social world (Saunders, et al., 2016). Epistemology can help in defining what constitutes "key skills" in the payroll department. It can involve examining the different types of knowledge that are relevant to payroll, such as procedural knowledge of specific payroll software, declarative knowledge of laws and regulations related to payroll in Ireland and international markets, and experiential knowledge gained through practical experience in payroll. **Epistemological analysis can help in understanding the sources, reliability, and validity of these different types of knowledge** (Bryman & Bell, 2015) and how they contribute to the overall demand for key skills in the payroll department. It can be applied to assess the validity of knowledge claims related to identifying key skills for payroll roles. It involves examining questions such as What constitutes valid knowledge about the key skills necessary for payroll roles in Ireland for SMEs with a primary focus on international markets? What are the sources of knowledge and evidence used to make claims about these key skills? It involves examining questions such as What justifies the belief in specific key skills needed for payroll roles in Ireland? What are the **underlying assumptions and reasoning** used to support these beliefs? epistemological analysis can help in **critically evaluating** the validity and reliability of knowledge claims made in the research problem, such as through logical reasoning, **empirical research**, expert opinions, or theoretical frameworks. It can also be applied to evaluate the epistemic justification of beliefs and assumptions related to identifying key skills for payroll roles. Epistemology can also be applied to consider the nature of knowledge generation in the process of identifying key skills for payroll roles. It involves examining questions such as What methods and approaches are used to generate knowledge about key skills for payroll roles? How do different paradigms, theories, and research designs influence the generation of knowledge in the research problem? (Saunders, et al., 2016) Epistemological analysis can help in understanding the nature of knowledge generation in the research problem, such as

through qualitative, quantitative, or mixed methods approaches, and their implications for the research findings.

## 19 Extremes of Epistemology Assumption (Objectivism and Subjectivism)

**Objectivist**

The research question can be approached from an objectivist perspective (Saunders, et al., 2016), assuming that there are objective and measurable skills that are necessary for working in the payroll department. This would involve identifying a set of skills based on established theories, concepts, and practices in payroll management, and using **quantitative research methods** (Bryman & Bell, 2015) such as surveys or tests to measure the presence or absence of these skills among payroll professionals in Ireland.

**Subjectivist.**

This study can also be approached from a subjectivist perspective (Saunders, et al., 2016), assuming that skills are subjective and context-dependent, and may vary across individuals, companies, and international markets. This would involve using **qualitative research methods** (Quinn, 2015) such as **interviews** or case studies **to explore** the perceptions and **experiences of payroll professionals**, managers, and other stakeholders, and to uncover the diverse range of skills that are considered important in different contexts. It can help in examining the role of subjectivity and bias in the process of identifying key skills for payroll roles. It involves considering questions such as How do personal biases, perspectives, and subjective judgments influence the identification of key skills for payroll roles in Ireland? How can potential biases in data collection, analysis, and interpretation impact the findings related to the research problem? (Bryman & Bell, 2015) Epistemological analysis can help in identifying and addressing potential biases and subjectivity in the process of identifying key skills, such as through **critical reflection**, triangulation of data, and transparency in research processes.

## 20 Approach (Deduction, Abduction, and Induction)

The approaches of deduction, abduction, and induction can be used in combination to investigate the key skills necessary for working in the payroll department in this research

considering the specific context. A good research approach will help in developing knowledge about the key skills in payroll being researched. To gain accurate results it is important to identify a set of procedures that will give a broad information on the subject being researched.

The following table shows important themes to consider in the research approach. Saunders et al. (2009) emphasizes the significance of clearly defining the research problem, research question, research objectives, and linking them to the thorough research approach.

| RESEARCH TOPICS | RESEARCH TOPIC FEATURES |
|---|---|
| **RESEARCH PROBLEM.** | **"Skill competencies required for entry-level and mid-level payroll positions for Small and Medium-Sized Businesses"** |
| **RESEARCH QUESTIONS.** | "What are the key skills necessary for working in the payroll department in entry-level and mid-level roles in Ireland for Small and Medium companies with a primary focus on international markets". |
| **RESEARCH OBJECTIVES.** | 1  Identify payroll skill and requirements in Ireland for entry and mid-level in SMEs through digital job postings and highlight the results with common requirements.<br><br>2  Identify Irish SMEs which possess a payroll department, with relationships in foreign markets and explore deep the payroll area through interviews.<br><br>3  Analyse the identified job posting skills against the interview findings in Ireland for payroll professionals to determine if there is a gap that needs to be addressed and use this information for final data collecting.<br><br>4  Develop a dynamic list of key skills necessary for working in the payroll department in entry and mid-level roles in Irish SMEs with foreign markets based on the findings from the literature review, interviews, and job analysis. |

| | 5 Provide recommendations of the necessary skills are currently required among entry-level and mid-level payroll professionals, in SMEs with relationship in foreign market. |
|---|---|

*Table 2.Thematic approach table of the research methodology.*

In the context of the research question in this study particularly, the approaches of deduction, abduction, and induction can be used as follows:

**Deduction**

Deductive reasoning involves drawing specific conclusions from general principles or theories (Bryman & Bell, 2015). In this research question, deduction could be used to identify key skills necessary for working in the payroll department by starting with general principles or theories related to payroll management and then applying them to the specific context of entry-level and mid-level roles in Ireland for small and medium companies with a primary focus on international markets. For example, the researcher could start with general principles of payroll management, such as knowledge of relevant legislation and regulations, proficiency in payroll software, and understanding of international payroll practices, and then use deductive reasoning to determine how these principles apply to the specific context of the research question. **Deduction would be appropriate for Objective1**, identifying Irish SMEs with a payroll department and relationships in foreign markets. (Saunders, et al., 2009) Deduction would involve using existing knowledge or theories to deduce which Irish SMEs are likely to have a payroll department and international operations. This could involve reviewing existing literature or market reports, identifying characteristics or criteria that are associated with SMEs with international operations, and using deductive reasoning to identify potential SMEs for further investigation.

**Abduction**

Abductive reasoning involves making educated guesses or forming hypotheses based on incomplete or limited information (Bryman & Bell, 2015). In the context of the research question, abduction could be used to generate hypotheses (Saunders, et al., 2016) about the key skills necessary for working in the payroll department based on limited information or data. For example, the researcher could review existing literature on payroll management and international business, conduct interviews or surveys with payroll professionals or HR

managers in small and medium companies with international operations in Ireland, and then use abductive reasoning to infer the key skills that are likely to be necessary for working in the payroll department in the specific context of entry-level and mid-level roles in Ireland for small and medium companies with a primary focus on international markets. **Abduction would be appropriate for objective2,** analysing payroll skill descriptions and requirements through digital job postings and highlighting previous results with common requirements for collecting primary data. Abduction would involve making educated guesses or forming hypotheses about the common payroll skills described in job postings for entry-level and mid-level roles in SMEs with international operations. This could involve collecting and analysing data from digital job postings, identifying patterns or trends, and using abductive reasoning to infer the key skills that are commonly sought after in these job postings. Abduction could also be used to identify previous research or studies that have identified common requirements for payroll professionals in SMEs with international operations and use them as a basis for collecting primary data.

**Induction**

Inductive reasoning involves drawing general conclusions from specific observations or data (Saunders, et al., 2009). In the context of the research question, induction could be used to identify key skills necessary for working in the payroll department based on specific observations or data collected from the field. For example, the researcher could conduct empirical research, such as surveys, interviews, or case studies, to gather data on the skills currently required or valued by payroll professionals working in entry-level and mid-level roles in small and medium companies with international operations in Ireland. The researcher could then use inductive reasoning to analyse the data and identify patterns or trends that suggest the key skills necessary for working in the payroll department in the specific context of the research question.


## 21  Research Methodology Choice – Interpretivism Philosophy

Overall the information in this study provided, according to Burell & Morgan (1979) show critical evaluation on the validity and reliability of knowledge claims made in the research question, given the aspects of skills needed to work in an early position in payroll are focused more to a subjective and context-dependent information (Bryman & Bell, 2015), to answer accurately the research question, this methodology  research is based on an **"Interpretivism**

**Philosophy"** and **"Epistemology (Subjective) Assumption"** (Saunders, et al., 2016). Choosing an appropriate research approach that aligns with the research philosophy overall considering existing literature, limited information and specific observations of data collected from the field has led the researchers choice of approach to be inductive based in exploration of the research options. (Saunders, et al., 2016)**.**

## 22 Approach Choice - Inductive

According to this research an **inductive approach** for both future data collections (**identified skills through digital media and interviews)** are appropriate as data will be collected and this will provide information that will build a theory (Saunders, et al., 2016), evaluating the identified skills against interviews findings and education programs in Ireland, Inductive reasoning would involve drawing general conclusions from specific observations or data collected from interviews with payroll professionals, as well as from the findings from the literature review and job analysis. This could involve comparing the data collected from different sources, identifying patterns or discrepancies, and using inductive reasoning to draw conclusions about the key skills necessary for working in the payroll department in the specific context of Irish SMEs with international operations. Developing a dynamic list of key skills necessary for working in the payroll department will be achieved by collecting data through digital media of job postings currently advertised. Inductive reasoning would be employed to develop a dynamic list of key skills based on the findings from the literature review, interviews, and job analysis. This could involve integrating the data collected from different sources, identifying common themes or patterns, and using inductive reasoning to generate a list of key skills that are necessary for working in the payroll department in entry-level and mid-level roles in Irish SMEs with international operations.

## 23 Method Choice - Qualitative

In this section the researcher presents the methods that can be used to answer the research question. A mixed method or single research method approach may be suitable as it involves both quantitative and qualitative data (Bryman & Bell, 2015). This research uses a **"Qualitative method"** (Quinn, 2015) in an **"Exploratory nature"** (Saunders, et al., 2016), in both future analysis (Job Postings and Interviews) as can be seen in the table below as it will be the appropiate method to gain a body of information to reach a final outcome. However,

**Quantitative research method** (Duignan, 2014) can be used to collect information from jobs posted through social networks, even though it will be coded in a "**Qualitative method**" to generate Interpretivism results in the next chapter.

| Qualitative method | Quantitative method |
|---|---|
| **Exploratory nature:** In this case, through Interviews with open-ended questions that require an in-depth exploration of the skills and knowledges necessary for working in the payroll department. This method can provide rich, detailed, and nuanced insights into the experiences, opinions, and perspectives of individuals who work in payroll department, which may not be possible through quantitative methods. | **Generalizability:** Quantitative data can provide a larger sample size (collected data by **"Digital means of Job postings"**) than Qualitative and a more representative sample of the population. This can help to ensure that the findings are standardized to a larger population beyond the specific context of the study. |
| **Understanding context:** Can help to identify the specific skills and competencies that are valued and necessary by different prospects in the area, for example, it can provide insights into the organizational culture, management practices, and legal and regulatory frameworks that impact the payroll department. | **Comparison:** Quantitative data can be used to compare the skills necessary for working in the payroll department across different companies, industries, and international markets. This can help to identify commonalities and differences in the skills required for success in these roles. |
| **Subjective (assumption) nature of skills**: The key skills necessary for working in the payroll department are subjective and may vary depending on the company's size, industry, and international markets. | **Objective nature:** It can provide objective measurements of the skills necessary for working in the payroll department. This can help to quantify the importance of different skills and competencies for success in this role. It can be analysed using statistical methods to identify patterns, relationships, and trends in the data. |

*Table 3.Two main methods applicable in this research study.*

## 24 Research sample - Non-random sample

According with Saunders et al (2016) **Non-random sample** a technique used in a "Subjective Assumption" includes the theoretical sampling (Glaser & Strauss, 1967) an approach of "grounded theory" in which Saunders considers a minimum sample size 20-35, this strategy can provide a subjective judgement in the **qualitative data** collected of the **inductive research**, however the data collected may not reach new concepts in a saturation point as the researchers  target population becomes more selective over time (Bryman & Bell, 2015). In contrast to the grounded theory sample this research will develop through a **Homogeneous sampling** where unstructured **"depth interviews"** in which Saunders considers a minimum sample size 4-12 / and for **"Job postings"** (web data extraction) it will identify through digital media (Krippendorff, 2004), it can bring more positive results to answer the research question effectively and accurately.

 Given that the research area is very specific (SMEs Irish companies with a focus on any foreign market or sector with their own payroll department) and the target sector is pretty much limited the researcher could find difficulties when collecting the information, since many of the smaller companies outsource their payroll management, it can greatly limit the investigator's target audience. Taking account of this factor,  the researcher will address the study to the payroll area specifically, although this may cover several other sectors such as accounting, finance and human resources, or any other area that manages the payroll process of SMEs and/or international payroll, professionals with knowledge in the area to help with their experience to answer the research question for its purpose which is intended to find insights in the skills required for an early position in the payroll department and consider the possible facts faced by payroll at an international level.


## 25 Research Strategy Instrument

For this research two instruments will be used. A digital collection of data and unstructured **interviews** will both be used as **primary data** to collect information in the area of payroll and the skills required by the sector.

## 25.1    Digital content

A digital content is recognised as an instrument where information is available through an online means from sources such as website and online communications (Krippendorff, 2004). There are many options available digitally to extract primary data such as Text analytics which is used to analyse text based content,  Web analytics which is used to identify traffic  and patterns in customer behaviour and Social media analytics which are used to gather data of social media platforms (Pejic-Bacha, et al., 2020). However, while Paschen, et al. (2017) and Pejic-Bacha, et al. (2020) show their information has been accumalated using software to help in the collection process in contrast to Ahsan, et al. (2013), whereby a manual processing of data was undertaken leading to a more laborious method of collection. Taking account this research uses a text analysis of Job Postings advertised as a digital instrument in a qualitive method to give a high quality and better output considering the research topic.


## 25.2    Interviews

Secondly **"Open-ended Question"** will be use in a deep **"Unstructured Interview"** (Bryman & Bell, 2015)**.** As Burgess (1984) explains interviews (non-directive) has been labelled to **informal interview**, in which Dalton (1959) highlights the importance of having a **conversational Interview** for data collection as in this research will be carried out, where the participants are allowed to expand their opinions freely on the information given, producing a broader field of data for analysis. Therefore, **conversational Interviews** are chosen, as the researcher can set the direction of the questions but will give the interviewee the freedom to expand in the conversation where information can flow and increase the data for collection.


## 26   Data Collection Method

This research has two primary data collections to gather a thorough content in the final outcomes, the first data collected refers to data information in "**50 job postings"** through digital media (Ahsan, et al., 2013) and the second data "**5 interviews"** was collected by phone and face to face interviews, as Saunders et al. (2009) and Bryman & Bell (2015)  referred for the data collection method.

### 26.1    Job postings

Compiling a list of web advertising vacancies in the accounting and payroll area in Ireland was the first course of action. These web sources of Table 4, offer a wide range of job opportunities (Verma & Lamsal, 2022) as "Payroll position" across various industries and sectors (Shmatko & Volkova, 2020) and are commonly used by both employers and job seekers in Ireland.

| *Web* | *Link* |
|---|---|
| *1. Indeed.ie* | Indeed.ie: https://www.indeed.ie/ |
| *2. Jobs.ie* | Jobs.ie: https://www.jobs.ie/ |
| *3. Irishjobs.ie* | Irishjobs.ie: https://www.irishjobs.ie/ |
| *4. LinkedIn Jobs* | LinkedIn Jobs: https://www.linkedin.com/jobs |
| *5. Recruit Ireland* | Recruit Ireland: https://www.recruitireland.com/ |

*Table 4.Web advertising vacancies*

Through the keyword **"Payroll"**, the positions offered were filtered, the resulted digital data was taken, excluding third level positions (the highest job positions), this information was then collected to form a complete database in an Excel document which was used to display themes by colours between each job posting, which the researcher considered more convenient for future digital content analysis (Krippendorff, 2004). Therefore the following figure presents the content of this first data collected and the model in which the researcher developed the coding for its analysis. However, its data collected will be explained in the "Data Analysis section".

| Company Code | Job Posting | Job Title | Level Position | Year's Experience |
|---|---|---|---|---|
| COMP-1 | 1 | Payroll Specialist | Mid-Level | 2-3 years |
| COMP-2 | 2 | Payroll Specialist | Mid-Level | Desirable |
| COMP-3 | 3 | Payroll Administrator / Accounts Assistant | Entry-Level | Does not specify |
| COMP-4 | 4 | Payroll/Accounts Assistant | Entry-Level | Does not specify |
| COMP-5 | 5 | Payroll Administrator | Entry-Level | Does not specify |
| COMP-6 | 6 | Junior Payroll Executive | Entry-Level | 2 years |
| COMP-7 | 7 | Payroll and Accounts Assistant | Entry-Level | 5 years |
| COMP-8 | 8 | Payroll Associate | Entry-Level | Desirable |
| COMP-9 | 9 | Pensions & International Payroll Executive | Mid-Level | Desirable |
| COMP-10 | 10 | Payroll Specialist - Hybrid | Mid-Level | 3 years |
| COMP-11 | 11 | Grade IV Payroll Officer | Mid-Level | Does not specify |
| COMP-12 | 12 | Payroll Manager | Mid-Level | Does not specify |
| COMP-13 | 13 | Payroll Analyst - Europe - Dublin | Mid-Level | 3 years |
| COMP-14 | 14 | Payroll Specialist | Mid-Level | 4 years |
| COMP-15 | 15 | International Payroll Executive | Mid-Level | Desirable |
| COMP-16 | 16 | Payroll specialist | Mid-Level | Desirable |
| COMP-17 | 17 | Payroll Specialist | Mid-Level | 2 years |
| COMP-18 | 18 | Payroll Administrator | Entry-Level | 2 years |
| COMP-19 | 19 | Accounts & Payroll - Hospitality Sector | Mid-Level | 2 years |
| COMP-20 | 20 | Payroll Specialist | Mid-Level | 3 years |
| COMP-21 | 21 | Payroll/Pensions Officer Grade IV | Mid-Level | Does not specify |
| COMP-22 | 22 | Global Payroll Administrator | Entry-Level | Does not specify |
| COMP-23 | 23 | Global Payroll Specialist - FAAS | Mid-Level | Desirable |
| COMP-24 | 24 | Payroll Specialist | Mid-Level | 2-3 years |
| COMP-25 | 25 | Payroll Analyst EMEA | Mid-Level | 5 years |
| COMP-26 | 26 | Payroll Specialist | Mid-Level | Desirable |
| COMP-27 | 27 | Payroll Coordinator - 6 Months FTC | Mid-Level | 1+ years |
| COMP-28 | 28 | Payroll Specialist | Mid-Level | 5 years |
| COMP-29 | 29 | Payroll Specialist | Mid-Level | 5 years |
| COMP-30 | 30 | Payroll Administrator | Mid-Level | 3-5 years |
| COMP-31 | 31 | Assistant Staff Officer (Grade IV) - Payroll | Mid-Level | Desirable |
| COMP-32 | 32 | Ireland Payroll Country owner (PCO) - Wo | Mid-Level | 7 years |
| COMP-33 | 33 | HR Payroll Specialist (Hybrid) - 12 Month | Mid-Level | 2-3 years |
| COMP-34 | 34 | Lead Payroll Operations (d/f/m) | Mid-Level | 5 years |
| COMP-35 | 35 | Junior Payroll Administrator | Entry-Level | 2 years |
| COMP-36 | 36 | Payroll Administrator | Entry-Level | Does not specify |
| COMP-37 | 37 | Payroll Administrator | Entry-Level | Desirable |
| COMP-38 | 38 | Payroll Specialist | Mid-Level | Does not specify |
| COMP-39 | 39 | Temporary Payroll Processor | Mid-Level | 2-4 years |
| COMP-40 | 40 | Payroll Specialist | Mid-Level | 2-3 years |
| COMP-41 | 41 | Payroll Administrator | Entry-Level | Desirable |
| COMP-42 | 42 | Payroll Administrator | Entry-Level | 2 years |
| COMP-43 | 43 | Accounts Administrator | Entry-Level | Desirable |
| COMP-44 | 44 | Payroll and Accounts Assistant | Entry-Level | Does not specify |
| COMP-45 | 45 | Payroll Project Manager | Mid-Level | 2 years |
| COMP-46 | 46 | Payroll Specialist | Mid-Level | Does not specify |
| COMP-47 | 47 | Accounts and Payroll Manager | Mid-Level | Does not specify |
| COMP-48 | 48 | Payroll Administrator | Entry-Level | Desirable |
| COMP-49 | 49 | Payroll Associate | Entry-Level | 1 year |
| COMP-50 | 50 | Payroll Administrator | Mid-Level | 3 years |

*Source data, 50 job postings (raw input data), by Yanely Vasquez, 2023*

**Figure 6.    Source data, 50 job postings (raw input data)**

## 26.2   Interview

The second primary data was collected by means of **open-ended** questions in an informal interview as Dalton, (1959) and Burgess, (1984) refered (Bryman & Bell, 2015). Getting together a list of companies and contacts to participate in an interview was the first course of action to gather the primary data required for analysis later. Each of the selected

professionals were emailed to make a first contact. An introduction and explanation of the research was portrayed to engage people and each participant was notified of the ethical considerations in the email. The researcher followed up with a telephone contact where the participants were invited to take part in a 45-minute interview by person, phone or video call at a time that suited for them where they could be comfortable and open for conversation. Five participants were open to further contact if extra information was required. This data collection along with the first primary data will come together for analysis later.

The interviewer's intention was to collect qualitative data (Walle, 2015) of an exploratory nature (Neha, 2021) (Holzmann & Spiegler, 2010) to understand the context of opinions, experience, and perspectives of professionals in the payroll and accounting area, open-end informal interviews were the basis to develop the following questions which allow the participants to expand and express freely their insights and knowledge of the area.

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**Sample of some questions the researcher used in the interview process.**

**Although the interviewer was aware of improvising relevant questions in during the conversation.**

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- ➢ Can you tell me about working in the payroll, accounting area?
- ➢ Can you tell me about the skills you believe are necessary to be successful payroll area?
- ➢ In your own opinion, what are the differences working in payroll area for international companies, versus companies operating only in the domestic market?
- ➢ In your opinion, what are some of the biggest challenges that entry-level and mid-level payroll professionals face in small and medium companies with a primary focus on international markets?
- ➢ What kind of technical skills do you think are necessary to work in payroll, especially in companies that deal with international markets?
- ➢ In your experience, what are some of the most important soft skills that entry and mid-level payroll professionals need to possess, and how do these skills impact their ability to be successful in their role?

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> ➤ What kind of experience or training do you think entry-level payroll professionals need to have to be successful in their role, and how does this differ from mid-level professionals?

> ➤ How do you think technology is changing the payroll area, and what kind of technological skills do you think are necessary for payroll professionals to have?

> ➤ What do you think of the hard skills and soft skills that I have derived from the analysis of 50-Jobs-Posting-Format? Are these skills aligned with your company, your own experience?

*Table 5.Sample questions used in the interview process.*

## 27 Data analysis

The data in this research is presented in a **Thematic analysis technique** (Quinn, 2015) which the researcher will code to identify common themes.  This provides a systematic and logical process to examine both primary data's (**50 Job Postings** and **5 Interview**) collected.  The principle instrument (Stringer, 1996) used to display the analysis of collected data will be an Excel style document (Duignan, 2014) that will have the ability to provide the results which can be illustrated in an easy read format.  In displaying the final data, the use of both bar and pie charts will be used as some studies have provided evidence to show that a visual display of results is preferable and easier to understand for the readers (Spence & Lewandowsky, 1991).

### 27.1 Job Postings

The digital Job Postings were coded manually in an Excel document as Ahsan, et al. (2013) have done in previous research. Each job posting was individually scanned and the details input in the document to build the information groups.

The results were displayed to show themes and similarities of the data in a qualitative way. However, compared to large quantitative studies (Duignan, 2014) where Bar and Pie style charts are commonly used, the researcher even though the size of data collected was much smaller has chosen to use these instruments to give the reader a better visual result of the data analysed (Spence & Lewandowsky, 1991).

| Soft Skills Code | Skills Colour | Soft Skills Description |
|---|---|---|
| SS-1 | | Customer service skills |
| SS-2 | | Analytical thinking skills (Attention to detail) |
| SS-3 | | Communication skills |
| SS-4 | | Fluent in language |
| SS-5 | | Time management skills |
| SS-6 | | Flexibility and adaptability (Stress management) skills |
| SS-7 | | Leadership skills |
| SS-8 | | Networking skills |
| SS-9 | | Positive attitude |
| SS-10 | | Ethical and professional values |
| SS-11 | | Problem-solving |
| SS-12 | | Others |

*Figure 7.     Soft skills description, by Yanely Vasquez (2023)*

| Hard Skills Code | Skills Colour | Hard skills Description |
|---|---|---|
| HS-1 | | Knowledge in entire payroll process |
| HS-2 | | Knowledge in compliance, taxes, legislation and regulations. |
| HS-3 | | Knowledge in financial control and budget management skills |
| HS-4 | | Knowledge in Microsoft Excel |
| HS-5 | | Knowledge in IPASS qualification |
| HS-6 | | Knowledge of Sage payroll |
| HS-7 | | Knowledge in SAP System |
| HS-8 | | Knowledge in Quantum |
| HS-9 | | Knowledge in others computerized accounts-payroll packages |
| HS-10 | | Knowledge in international concerns |

*Figure 8.     Hard skills description, by Yanely Vasquez, (2023)*

| Company Code | Job Posting | Job Title | Level Position | Year's Expirence | Soft skills | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Description 1 | Description 2 | Description 3 | Description 4 | Description 5 | Description 6 | Description 7 | Description 8 | Description 9 | Description 10 | Description 11 |
| COMP-1 | 1 | Payroll Specialist | Mid-Level | 2-3 years | SS-2 | SS-3 | SS-3 | SS-5 | SS-3 | SS-5 | | | | | |
| COMP-2 | 2 | Payroll Specialist | Mid-Level | Desirable | SS-7 | SS-5 | SS-9 | SS-7 | SS-2 | SS-2 | SS-1 | | | | |
| COMP-3 | 3 | Payroll Administrator / Accounts Assistant | Entry-Level | Does not specify | SS-2 | SS-5 | SS-3 | SS-4 | | | | | | | |
| COMP-4 | 4 | Payroll/Accounts Assistant | Entry-Level | Does not specify | SS-2 | SS-3 | SS-6 | SS-10 | SS-3 | SS-6 | | | | | |
| COMP-5 | 5 | Payroll Administrator | Entry-Level | Does not specify | SS-2 | SS-4 | SS-3 | SS-5 | SS-6 | SS-2 | | | | | |
| COMP-6 | 6 | Junior Payroll Executive | Entry-Level | 2 years | SS-3 | SS-2 | SS-7 | SS-10 | SS-6 | | | | | | |
| COMP-7 | 7 | Payroll and Accounts Assistant | Entry-Level | 5 years | SS-7 | SS-5 | SS-2 | | | | | | | | |
| COMP-8 | 8 | Payroll Associate | Entry-Level | Desirable | SS-5 | SS-5 | SS-3 | SS-6 | SS-1 | SS-12 | | | | | |
| COMP-9 | 9 | Pensions & International Payroll Executive | Mid-Level | Desirable | SS-3 | SS-3 | SS-3 | SS-7 | SS-5 | SS-6 | SS-3 | SS-10 | | | |
| COMP-10 | 10 | Payroll Specialist - Hybrid | Mid-Level | 3 years | SS-12 | SS-12 | SS-12 | | | | | | | | |
| COMP-11 | 11 | Grade IV Payroll Officer | Mid-Level | Does not specify | SS-3 | SS-6 | | | | | | | | | |
| COMP-12 | 12 | Payroll Manager | Mid-Level | Does not specify | SS-5 | SS-5 | SS-11 | SS-7 | SS-7 | SS-5 | SS-8 | | | | |
| COMP-13 | 13 | Payroll Analyst - Europe - Dublin | Mid-Level | 3 years | SS-7 | SS-4 | | | | | | | | | |
| COMP-14 | 14 | Payroll Specialist | Mid-Level | 4 years | SS-2 | SS-3 | SS-11 | SS-7 | SS-3 | | | | | | |
| COMP-15 | 15 | International Payroll Executive | Mid-Level | Desirable | SS-5 | SS-7 | SS-2 | SS-5 | SS-6 | | | | | | |
| COMP-16 | 16 | Payroll specialist | Mid-Level | Desirable | SS-9 | SS-3 | SS-5 | SS-7 | | | | | | | |
| COMP-17 | 17 | Payroll Specialist | Mid-Level | 2 years | SS-2 | SS-3 | SS-12 | | | | | | | | |
| COMP-18 | 18 | Payroll Administrator | Entry-Level | 2 years | SS-3 | SS-5 | SS-5 | | | | | | | | |
| COMP-19 | 19 | Accounts & Payroll - Hospitality Sector | Mid-Level | 2 years | SS-2 | SS-3 | SS-5 | SS-9 | SS-7 | SS-7 | SS-3 | SS-2 | | | |
| COMP-20 | 20 | Payroll Specialist | Mid-Level | 3 years | SS-3 | SS-2 | | | | | | | | | |
| COMP-21 | 21 | Payroll/Pensions Officer Grade IV | Mid-Level | Does not specify | SS-2 | SS-8 | SS-3 | SS-6 | SS-7 | SS-7 | SS-1 | | | | |
| COMP-22 | 22 | Global Payroll Administrator | Entry-Level | Does not specify | SS-3 | SS-11 | SS-5 | SS-7 | SS-2 | | | | | | |
| COMP-23 | 23 | Global Payroll Specialist - FAAS | Mid-Level | Desirable | SS-2 | SS-5 | SS-3 | SS-11 | SS-11 | SS-5 | SS-3 | SS-5 | | | |
| COMP-24 | 24 | Payroll Specialist | Mid-Level | 2-3 years | SS-3 | SS-3 | SS-5 | | | | | | | | |
| COMP-25 | 25 | Payroll Analyst EMEA | Mid-Level | 5 years | SS-3 | SS-9 | SS-2 | SS-7 | SS-1 | SS-6 | SS-6 | SS-12 | SS-4 | | |
| COMP-26 | 26 | Payroll Specialist | Mid-Level | Desirable | SS-2 | SS-111 | SS-5 | SS-3 | SS-5 | SS-3 | SS-2 | | | | |
| COMP-27 | 27 | Payroll Coordinator - 6 Months FTC | Mid-Level | 1+ years | SS-3 | SS-1 | SS-6 | SS-9 | SS-5 | SS-11 | SS-7 | SS-2 | | | |
| COMP-28 | 28 | Payroll Specialist | Mid-Level | 5 years | SS-2 | SS-5 | SS-5 | | | | | | | | |
| COMP-29 | 29 | Payroll Specialist | Mid-Level | 5 years | SS-2 | SS-3 | SS-1 | | | | | | | | |
| COMP-30 | 30 | Payroll Administrator | Mid-Level | 3-5 years | SS-2 | SS-7 | SS-3 | SS-3 | SS-5 | SS-10 | SS-6 | SS-7 | SS-5 | SS-11 | |
| COMP-31 | 31 | Assistant Staff Officer (Grade IV) - Payroll | Mid-Level | Desirable | SS-5 | SS-3 | SS-7 | SS-5 | SS-7 | | | | | | |
| COMP-32 | 32 | Ireland Payroll Country owner (PCO) - Wo | Mid-Level | 7 years | SS-4 | SS-2 | SS-11 | SS-3 | SS-3 | SS-11 | SS-5 | SS-11 | | | |
| COMP-33 | 33 | HR Payroll Specialist (Hybrid) - 12 Month C | Mid-Level | 2-3 years | SS-5 | SS-3 | SS-2 | SS-3 | SS-10 | SS-8 | SS-7 | SS-6 | SS-7 | | |
| COMP-34 | 34 | Lead Payroll Operations (d/f/m) | Mid-Level | 5 years | SS-1 | SS-7 | SS-12 | SS-11 | SS-3 | SS-11 | SS-4 | | | | |
| COMP-35 | 35 | Junior Payroll Administrator | Entry-Level | 2 years | SS-2 | SS-5 | SS-3 | SS-6 | SS-12 | SS-12 | SS-1 | | | | |
| COMP-36 | 36 | Payroll Administrator | Entry-Level | Does not specify | SS-1 | SS-3 | SS-5 | SS-5 | | | | | | | |
| COMP-37 | 37 | Payroll Administrator | Entry-Level | Desirable | SS-2 | SS-1 | SS-3 | SS-7 | SS-12 | | | | | | |
| COMP-38 | 38 | Payroll Specialist | Mid-Level | Does not specify | SS-5 | SS-3 | SS-9 | SS-5 | SS-2 | SS-12 | SS-3 | SS-2 | | | |
| COMP-39 | 39 | Temporary Payroll Processor | Mid-Level | 2-4 years | SS-2 | SS-3 | SS-7 | SS-5 | | | | | | | |
| COMP-40 | 40 | Payroll Specialist | Mid-Level | 2-3 years | SS-3 | SS-5 | SS-3 | SS-6 | SS-6 | SS-12 | SS-7 | SS-2 | SS-11 | SS-5 | SS-8 |
| COMP-41 | 41 | Payroll Administrator | Entry-Level | Desirable | SS-3 | SS-11 | SS-5 | SS-2 | SS-3 | SS-4 | SS-12 | SS-5 | | | |
| COMP-42 | 42 | Payroll Administrator | Entry-Level | 2 years | SS-11 | SS-3 | SS-8 | SS-6 | SS-2 | SS-5 | SS-10 | SS-11 | | | |
| COMP-43 | 43 | Accounts Administrator | Entry-Level | Desirable | SS-10 | SS-2 | SS-3 | SS-5 | | | | | | | |
| COMP-44 | 44 | Payroll and Accounts Assistant | Entry-Level | Does not specify | SS-10 | SS-3 | SS-2 | SS-5 | SS-11 | | | | | | |
| COMP-45 | 45 | Payroll Project Manager | Mid-Level | 2 years | SS-3 | SS-8 | SS-7 | SS-7 | SS-11 | SS-8 | SS-9 | SS-7 | | | |
| COMP-46 | 46 | Payroll Specialist | Mid-Level | Does not specify | SS-6 | SS-6 | SS-1 | SS-5 | SS-3 | SS-7 | SS-11 | SS-2 | | | |
| COMP-47 | 47 | Accounts and Payroll Manager | Mid-Level | Does not specify | SS-9 | SS-5 | SS-2 | SS-3 | SS-11 | SS-10 | SS-8 | SS-6 | SS-5 | SS-3 | |
| COMP-48 | 48 | Payroll Administrator | Entry-Level | Desirable | SS-1 | SS-7 | SS-6 | SS-1 | SS-1 | SS-3 | SS-5 | SS-6 | SS-11 | SS-2 | SS-2 |
| COMP-49 | 49 | Payroll Associate | Entry-Level | 1 year | SS-3 | SS-2 | SS-7 | SS-1 | SS-7 | SS-5 | | | | | |
| COMP-50 | 50 | Payroll Administrator | Mid-Level | 3 years | SS-2 | SS-10 | SS-9 | SS-3 | SS-10 | SS-6 | SS-4 | | | | |

*Thematic analysis technique in finding soft skills, by Yanely Vasquez, 2023*

*Figure 9.     Thematic analysis technique in 50 job postings - Soft skills*

| Company Code | Job Posting | Job Title | Level Position | Year's Expirence | Hard skills | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Description 1 | Description 2 | Description 3 | Description 4 | Description 5 | Description 6 | Description 7 | Description 8 | Description 9 | Description 10 |
| COMP-1 | 1 | Payroll Specialist | Mid-Level | 2-3 years | HS-1 | HS-5 | HS-4 | HS-6 | . | . | . | . | . | . |
| COMP-2 | 2 | Payroll Specialist | Mid-Level | Desirable | HS-1 | HS-2 | HS-2 | HS-1 | HS-9 | HS-5 | HS-4 | . | . | . |
| COMP-3 | 3 | Payroll Administrator / Accounts Assistant | Entry-Level | Does not specify | HS-6 | . | . | . | . | . | . | . | . | . |
| COMP-4 | 4 | Payroll/Accounts Assistant | Entry-Level | Does not specify | HS-1 | HS-2 | HS-4 | HS-1 | HS-1 | HS-1 | HS-1 | HS-1 | HS-1 | . |
| COMP-5 | 5 | Payroll Administrator | Entry-Level | Does not specify | HS-4 | . | . | . | . | . | . | . | . | . |
| COMP-6 | 6 | Junior Payroll Executive | Entry-Level | 2 years | HS-1 | HS-1 | HS-1 | HS-9 | HS-9 | HS-4 | HS-1 | HS-1 | HS-4 | HS-5 |
| COMP-7 | 7 | Payroll and Accounts Assistant | Entry-Level | 5 years | HS-9 | HS-5 | HS-7 | HS-4 | . | . | . | . | . | . |
| COMP-8 | 8 | Payroll Associate | Entry-Level | Desirable | HS-3 | HS-2 | HS-1 | . | . | . | . | . | . | . |
| COMP-9 | 9 | Pensions & International Payroll Executive | Mid-Level | Desirable | HS-1 | HS-2 | HS-1 | . | . | . | . | . | . | . |
| COMP-10 | 10 | Payroll Specialist - Hybrid | Mid-Level | 3 years | HS-1 | HS-5 | HS-8 | HS-4 | . | . | . | . | . | . |
| COMP-11 | 11 | Grade IV Payroll Officer | Mid-Level | Does not specify | HS-1 | HS-2 | . | . | . | . | . | . | . | . |
| COMP-12 | 12 | Payroll Manager | Mid-Level | Does not specify | HS-5 | HS-9 | HS-1 | HS-2 | HS-4 | HS-1 | HS-9 | HS-9 | . | . |
| COMP-13 | 13 | Payroll Analyst - Europe - Dublin | Mid-Level | 3 years | HS-1 | HS-10 | HS-1 | HS-1 | . | . | . | . | . | . |
| COMP-14 | 14 | Payroll Specialist | Mid-Level | 4 years | HS-2 | HS-1 | HS-1 | HS-9 | HS-5 | HS-2 | . | . | . | . |
| COMP-15 | 15 | International Payroll Executive | Mid-Level | Desirable | HS-1 | HS-9 | HS-2 | HS-1 | HS-1 | HS-1 | HS-2 | . | . | . |
| COMP-16 | 16 | Payroll specialist | Mid-Level | Desirable | HS-10 | HS-1 | HS-3 | HS-9 | HS-7 | . | . | . | . | . |
| COMP-17 | 17 | Payroll Specialist | Mid-Level | 2 years | HS-1 | HS-9 | HS-5 | HS-4 | HS-1 | HS-7 | . | . | . | . |
| COMP-18 | 18 | Payroll Administrator | Entry-Level | 2 years | HS-1 | HS-1 | HS-5 | HS-4 | HS-9 | . | . | . | . | . |
| COMP-19 | 19 | Accounts & Payroll - Hospitality Sector | Mid-Level | 2 years | HS-3 | HS-1 | HS-1 | HS-3 | HS-2 | HS-9 | . | . | . | . |
| COMP-20 | 20 | Payroll Specialist | Mid-Level | 3 years | HS-6 | HS-5 | HS-4 | . | . | . | . | . | . | . |
| COMP-21 | 21 | Payroll/Pensions Officer Grade IV | Mid-Level | Does not specify | HS-1 | HS-2 | HS-4 | HS-1 | HS-2 | HS-1 | HS-1 | HS-9 | . | . |
| COMP-22 | 22 | Global Payroll Administrator | Entry-Level | Does not specify | HS-1 | HS-9 | . | . | . | . | . | . | . | . |
| COMP-23 | 23 | Global Payroll Specialist - FAAS | Mid-Level | Desirable | HS-4 | HS-1 | HS-1 | HS-9 | . | . | . | . | . | . |
| COMP-24 | 24 | Payroll Specialist | Mid-Level | 2-3 years | HS-2 | . | . | . | . | . | . | . | . | . |
| COMP-25 | 25 | Payroll Analyst EMEA | Mid-Level | 5 years | HS-1 | HS-10 | HS-1 | HS-4 | . | . | . | . | . | . |
| COMP-26 | 26 | Payroll Specialist | Mid-Level | Desirable | HS-2 | HS-10 | HS-1 | HS-5 | . | . | . | . | . | . |
| COMP-27 | 27 | Payroll Coordinator - 6 Months FTC | Mid-Level | 1+ years | HS-1 | HS-4 | HS-9 | . | . | . | . | . | . | . |
| COMP-28 | 28 | Payroll Specialist | Mid-Level | 5 years | HS-5 | HS-1 | HS-2 | HS-8 | . | . | . | . | . | . |
| COMP-29 | 29 | Payroll Specialist | Mid-Level | 5 years | HS-5 | HS-2 | HS-8 | HS-3 | . | . | . | . | . | . |
| COMP-30 | 30 | Payroll Administrator | Mid-Level | 3-5 years | HS-4 | . | . | . | . | . | . | . | . | . |
| COMP-31 | 31 | Assistant Staff Officer (Grade IV) - Payroll & | Mid-Level | Desirable | HS-3 | HS-4 | HS-1 | HS-1 | HS-1 | . | . | . | . | . |
| COMP-32 | 32 | Ireland Payroll Country owner (PCO) - Wor | Mid-Level | 7 years | HS-2 | HS-1 | HS-3 | HS-4 | . | . | . | . | . | . |
| COMP-33 | 33 | HR Payroll Specialist (Hybrid) - 12 Month C | Mid-Level | 2-3 years | HS-1 | HS-1 | HS-6 | HS-1 | HS-4 | HS-2 | HS-2 | . | . | . |
| COMP-34 | 34 | Lead Payroll Operations (d/f/m) | Mid-Level | 5 years | HS-10 | HS-1 | . | . | . | . | . | . | . | . |
| COMP-35 | 35 | Junior Payroll Administrator | Entry-Level | 2 years | HS-1 | HS-2 | HS-4 | HS-1 | . | . | . | . | . | . |
| COMP-36 | 36 | Payroll Administrator | Entry-Level | Does not specify | HS-1 | HS-1 | HS-9 | HS-1 | HS-4 | HS-1 | HS-9 | . | . | . |
| COMP-37 | 37 | Payroll Administrator | Entry-Level | Desirable | HS-1 | HS-2 | HS-9 | HS-1 | . | . | . | . | . | . |
| COMP-38 | 38 | Payroll Specialist | Mid-Level | Does not specify | HS-1 | HS-2 | . | . | . | . | . | . | . | . |
| COMP-39 | 39 | Temporary Payroll Processor | Mid-Level | 2-4 years | HS-1 | HS-4 | HS-5 | HS-7 | . | . | . | . | . | . |
| COMP-40 | 40 | Payroll Specialist | Mid-Level | 2-3 years | HS-1 | HS-2 | HS-4 | HS-6 | HS-9 | HS-9 | . | . | . | . |
| COMP-41 | 41 | Payroll Administrator | Entry-Level | Desirable | HS-2 | HS-1 | HS-5 | HS-1 | . | . | . | . | . | . |
| COMP-42 | 42 | Payroll Administrator | Entry-Level | 2 years | HS-5 | HS-1 | HS-4 | HS-2 | . | . | . | . | . | . |
| COMP-43 | 43 | Accounts Administrator | Entry-Level | Desirable | HS-1 | HS-9 | HS-2 | HS-4 | . | . | . | . | . | . |
| COMP-44 | 44 | Payroll and Accounts Assistant | Entry-Level | Does not specify | HS-1 | HS-1 | HS-1 | HS-9 | HS-1 | HS-9 | HS-3 | HS-3 | HS-2 | . |
| COMP-45 | 45 | Payroll Project Manager | Mid-Level | 2 years | HS-6 | HS-1 | HS-2 | HS-1 | HS-1 | . | . | . | . | . |
| COMP-46 | 46 | Payroll Specialist | Mid-Level | Does not specify | HS-1 | HS-1 | HS-1 | HS-1 | HS-1 | HS-1 | HS-1 | HS-5 | HS-3 | HS-2 |
| COMP-47 | 47 | Accounts and Payroll Manager | Mid-Level | Does not specify | HS-1 | HS-4 | HS-1 | HS-1 | HS-1 | HS-1 | HS-1 | HS-1 | HS-1 | HS-2 |
| COMP-48 | 48 | Payroll Administrator | Entry-Level | Desirable | HS-5 | HS-2 | . | . | . | . | . | . | . | . |
| COMP-49 | 49 | Payroll Associate | Entry-Level | 1 year | HS-1 | HS-4 | HS-1 | . | . | . | . | . | . | . |
| COMP-50 | 50 | Payroll Administrator | Mid-Level | 3 years | HS-2 | HS-5 | HS-4 | HS-9 | . | . | . | . | . | . |

*Thematic analysis technique in finding Hard skills, by Yanely Vasquez, 2023*

**Figure 10.    Thematic analysis technique in 50 job postings - Hard skills**

### 27.2    Interview

According with Saunders et al. (2009) the set of interview questions that build the research will collect information about the skills necessary for a position in payroll and accounting area of SMEs with international operations. The results from this data will enable the building of a document (Duignan, 2014) presenting a fuller picture of the essential requirements of employees seeking a position in payroll and accounting.  The data is analysed with regard to current standards being met by the sector in Ireland and identifies any gap in skills required in this area (Walle, 2015). The results of the data collected will be displayed in a format (Fraenkel & Wallen, 2006) that allows the reader to understand the final outcome of the researched information.

### 28    Limitations

Regarding the limitations of this research (Bryman & Bell, 2015).  As many of these companies have international offices, we have limited this research to the country of Ireland. This will have the effect of providing results (Anon., n.d.) that reflect the status with the sector of SMEs in Ireland only.

- The cross-sectional timeframe involved in the complete research is a short period for Job Advertising.
- The number of companies (50 Job Postings and 5 Interview) reached in the short period can limit both data collected for analysis.
- Finding companies to take part in this research is also one of the limitations for the researcher.  Some companies have not replied or are not interested in taking part by interview.
- Due to the changes in environment, (hybrid working models) data collection methods may be limited for the research.
- There is little previous information available on the research of payroll area.

### 29    Time horizon

In the study presented, a cross-sectional approach was chosen for **Job Postings** and **Interviews**, considering the nature of this research as involves over the time, change factors of skills in technology and according to Saunders et al. (2009) cross-sectional approach allows

the researcher to have a result of a phenomenon at a point of time, therefore the primary data was captured first through Job Postings and second through Interviews over a period of three weeks' timeframe.

## 30   Ethical considerations

Ethical considerations based on the principles by (Bryman & Bell, 2015) need to be applied in collecting and developing the information needed for analysis and conclusion of this research. An official NCI Ethics application document was completed and submitted to the college to gain approval in proceeding with the research.

A consent form was constructed (BPP Learning Media, 2015) seeking permission from participants taking part in the **Interview** process and the Information gathered through the **50 Job Postings** was from easily accessible public sources. In providing information for this research participants remained anonymous and be identified as a numerical (Duignan, 2014). The researcher filed safely the primary data collected for the research.

Any information collected during this research will be available for academic purposes only while also ensuring the participants anonymity.  This document was read to participants before agreement and signing.  An explanation and direction of the research was provided and all information from participants was given on a voluntary basis.

# Chapter V: Analysis and findings

## 31  Introduction

This chapter presents two qualitative analyses, the bodies of analysis were collected with different research instruments, both carried out on companies located in Ireland, the first, an analysis of 50 job postings (34% Entry-level and 66% Mid-level) was collected through digital media in which gave results of the skills required in payroll area. While the second analysis was through 5 deep interviews in which the researcher presents the results in a thematic analysis. The information collected was brought together in Microsoft Excel and analysed, with the results being displayed in a format that gives the reader a clear understanding of the research analysis.

## 32  First analysis: Job Postings

**Payroll Skills Required in Ireland for Entry-level and Mid-level.**

The purpose of this critical analysis is to identify the "Soft and Hard Skills" required for Entry-level and Mid-level payroll positions in companies located in Ireland. The information presented below, it is divided into two sections (**Section A -** Soft skills found) (**Section B** - Hard skills found), each section was coded with colours that have "no relation to the other section", and it renames the companies as **Job Posting** 1,2,3 etc. in both sections to keep the information anonymous. However, the information was taken from public sources and through easily accessible means. The results show in Table 6, the Entry and Mid-Level categories and a description of the job positions belonging underneath.

| Entry-Level categories: | Mid-Level categories: |
|---|---|
| ➢ **Payroll Administrator** | ➢ Accounts & Payroll |
| ➢ **Payroll Administrator /** | ➢ Accounts and Payroll Manager |
| **Accounts Assistant** | ➢ Assistant Staff Officer (Grade IV) -Payroll & |
| ➢ **Junior Payroll Executive** | Superannuation |
| ➢ **Payroll and Accounts** | ➢ Global Payroll Specialist |
| **Assistant** | ➢ Grade IV Payroll Officer |
| ➢ **Payroll Associate** | ➢ HR Payroll Specialist |
| ➢ **Global Payroll Administrator** | ➢ International Payroll Executive |
| ➢ **Junior Payroll Administrator** | ➢ Ireland Payroll Country owner |
| ➢ **Accounts Administrator** | ➢ Lead Payroll Operations |

| | | |
|---|---|---|
| ➤ | Payroll Administrator | |
| ➤ | Payroll Analyst | |
| ➤ | Payroll Coordinator | |
| ➤ | Payroll Manager | |
| ➤ | Payroll Project Manager | |
| ➤ | Payroll Specialist | |
| ➤ | Payroll/Pensions Officer Grade IV | |
| ➤ | Pensions & International Payroll Executive | |
| ➤ | Payroll Processor | |
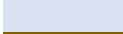
*Table 6.Job position in the payroll area.*

## 32.1    Section A - Soft skills found.

The first analysis results for Section A, are brought here to illustrate the skills-required for entry and mid-level employment in payroll departments which respond partially the first aim of the research question, and it is presented in the following figures.

**Objective 1:** Identify payroll skill and requirements in Ireland for entry and mid-level in SMEs through digital job postings and highlight the results with common requirements.

| Soft Skills Code | Skills Colour | Soft Skills Description |
|:---:|:---:|:---|
| SS-3 | | Communication skills |
| SS-5 | | Time management skills |
| SS-2 | | Analytical thinking skills (Attention to detail) |
| SS-7 | | Leadership skills |
| SS-6 | | Flexibility and adaptability (Stress management) skills |
| SS-11 | | Problem-solving |
| SS-1 | | Customer service skills |
| SS-12 | | Others |
| SS-10 | | Ethical and professional values |
| SS-8 | | Networking skills |
| SS-9 | | Positive attitude |
| SS-4 | | Fluent in language |

*Figure 11.      Colour Code Index for Section A, (Results labelled in order of highest to lowest)*

In the overall themes found by the researcher has signified the importance of communication in entry and mid-level payroll as at least 20% of the job postings highlighted this as a required skill for application.  Other skills of importance include time management with 18% citing this as a high requirement and 14% of employers seeking attention to detail as a highly rated skill. Of less prominence was found Flexibility, Problem Solving and Customer service at 7% and 5

% respectively with Network Skills, Positive attitude and Fluent English Language coming in at 3%.  Lastly but in contrast to the skills for Payroll position are specific requirements such as clean criminal record, driving licence and multi-lingual skills which fall into "Other" category which represent 4% of the overall requirements of employers.
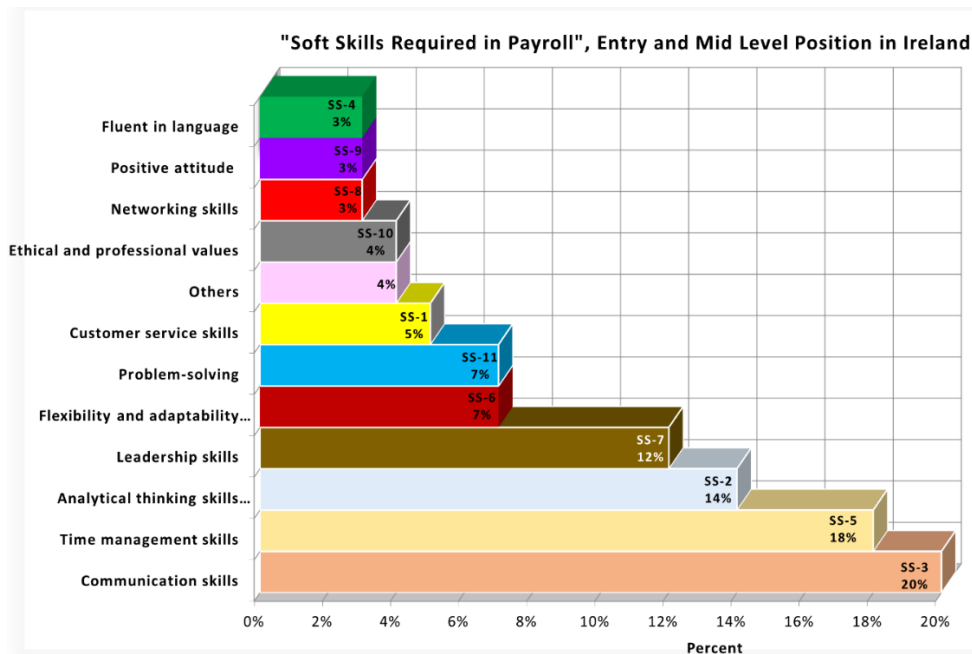


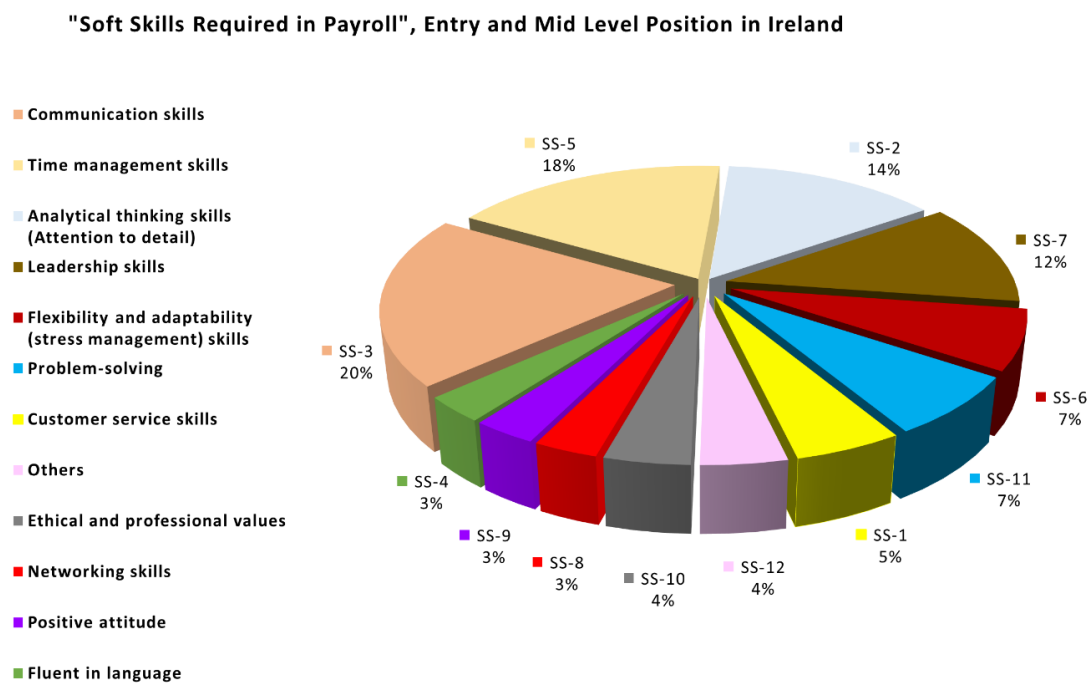*Figure 12.     Bar Chart of Section (A) Soft skills found.*



*Figure 13.     Pie Chart of Section (A) Soft skills found.*

[ 49 ]

Each group of skills was coded by a different colour, it was done this way to extract the skill sets by category, as some requirements are categorized under the same skill for example:

**"Communication skills"**

This skill was described in job posting (9) more than once as "Strong communication skills", "Ability to provide information to staff", "Ability to communicate and support other areas" and "management communication" which the researcher classified in the same category as "Communication skills".  In the overall result comunication skills scored highly, as can be seen in Figure 12 and 13, showing that this is a critical skill for any empolyee seeking to take a position in payroll.  The following tables show the results of these categories:

*"Communication skill"*

| | |
|---|---|
| ● | Other requirements included:  1) Communication written and verbal; 2) Second highly sought skill was the ability to convey accurate payroll-related matters. Furthermore, one result that stood out highly was the 3) ability to communicate with external and internal stakeholders, colleagues, and team members at all levels and providing information of pension and to support all audits. |

*"Time management"*

| | |
|---|---|
| ● | Other requirements included:  1) Proven track record of working to and meeting deadlines; 2) Organizational and has ability to multitask; 3) Manage multiple responsibilities in deadlines; 4) Manage competing responsibilities and deadlines in a timely and efficient manner; 5) Planning and organizational skills; 6) Administration and secretarial skills; 7) Ability to prioritize workload; 8) Dealing with complex payroll problems and multiple payroll rules; 9) Sense of responsibility to work unsupervised. |

*"Analytical thinking skill" (Attention to detail)*

| | |
|---|---|
| ● | Other requirements included:  1) Meticulous attention to detail and accuracy; 2) Strategic thinking to provide advice and direction; 3) Inquisitive mind; 4) Analyze and challenge conventional thought processes; 5) And use experience  and/or intuition to create pragmatic solutions. |

*"Leadership skill"- <mark>Most Mid-level</mark>*

| | |
|---|---|
| 🟤 | Other requirements included: 1) Teamwork and administrative skills; 2) Proven track record of working to and meeting deadlines; 3) Organisational and has ability to multitask; 5) Manage multiple responsibilities in deadlines. |

*"Flexibility and adaptability (stress management) skills"*

| | |
|---|---|
| 🔴 | Other requirements included: 1) Work well under pressure; 2) Deliver against tight deadlines; 3) Working for a global organization with a multicultural environment. |

*"Customer services skill"*

| | |
|---|---|
| 🟡 | Other requirements included: 1) Customer service orientation for internal partners and company's employees; 2) Empathy and customer satisfaction focus; 3)Receiving and recording customer enquiries; 4)Handling queries escalated from the client, complex payroll; 5) Ability to produce reports based on client requirements; 6) Provide customer service support to staff on payroll-related queries; 7) Provide a high level of service to internal and external customers. |

*"Ethical and professional values"*

| | |
|---|---|
| ⚪ | Other requirements included: 1) Maintain professionalism; 2) Discretion; 3) Confidence in liaising directly with clients; 4) Demonstrate sound judgement; 5) Act in a discrete and confidential manner when handling sensitive information. |

*"Networking"*

| | |
|---|---|
| 🔴 | Other requirements included: 1) Maintaining strong relationships with internal and external stakeholders to agree on project deliverables and delivery dates; 2) Ability to build and maintain good business relationships; 3) Relationship-building skills with internal and external agencies; 4) Relationships and Membership of payroll association of Ireland; 5) Liaising and corresponding with HSE offices and resident families where necessary; 6) Client Relationship Management. |

*"Positive attitude"-* <mark>*All Mid-level*</mark>

| | |
|---|---|
| 🟣 | Other requirements included:  1) Enthusiastic; 2) Self-motivated; 3) Pro-active; 4) High-reaching and curious self-starter; 5) Dynamic personality; 6) Adopts change and is passionate about continuous improvement; 7) Approach the job with a can-do attitude; 8) Work independently under direction; 9) Motivation to work in busy environment. |

*"Fluent in English (written and verbal)"*

| | |
|---|---|
| 🟢 | Other requirements included:  1) Fluent in English; 2) Second language proficiency (Italian or Spanish); 3) Business proficiency in German; 4) Have another European language. |

*"Others"*

| | |
|---|---|
| 🟣 | Other requirements included:  Specific requirements for the company for example 1) Full Drivers Licence, etc.; 2) Work Authorization in Ireland**.** |

*Table 7.Soft skills, descriptions in payroll area.*

## 32.2   Section B - Hard skills found.

In this Section B, it follows the same procedure as in Section A,

**Objective 1:** Identify payroll skill and requirements in Ireland for entry and mid-level in SMEs through digital job postings and highlight the results with common requirements.

| Hard Skills Code | Skills Colour | Hard skills Description |
|:---:|:---:|:---|
| HS-1 | | Knowledge in entire payroll process |
| HS-2 | | Knowledge in compliance,  taxes, legislation and regulations. |
| HS-4 | | Knowledge in Microsoft Excel |
| HS-9 | | Knowledge in others computerized accounts-payroll packages |
| HS-5 | | Knowledge in IPASS qualification |
| HS-3 | | Knowledge in financial control and budget management skills |
| HS-6 | | Knowledge of Sage payroll |
| HS-10 | | Knowledge in international concerns |
| HS-7 | | Knowledge in SAP System |
| HS-8 | | Knowledge in Quantum |

*Figure 14.      Colour Code Index for Section B, (Results labelled in order of highest to lowest)*

The results of the hard skills found shows (HS-1) knowledge of the entire payroll process to be the highest requirement with 42% of employers seeking this as a preference, this was followed with knowledge of (HS-2) compliance in taxation and law being the next highest at 15% closely followed by expertise in (HS-4) Mircosoft Excel package and at 12%, (HS-5) IPASS at 8%, (HS-6) Sage at 3%, (HS-7) SAP at 2% and (HS-8) Quantum at 1%.  Category (HS-9) Other Payroll Software Include softwares such as ADP, QuickBooks, CollSoft, ROS, Megapay, CoreHR, e-rostering Systems, HR system, MS word, Netsuite, SQL, Parolla,  however as each item in this category was of a lesser requirement than Quantum at 1%, these were summarised together in the (HS-9) Other Payroll Software giving a higher result of 11%.  On the other hand, knowledge skills of (HS-3) Budget and (HS-10) International payroll came in at 4% and 2 % respectively.  To illustrate the results of Hard Skills found in payroll area the following charts indicate by colour and percentage the total number of skills required.
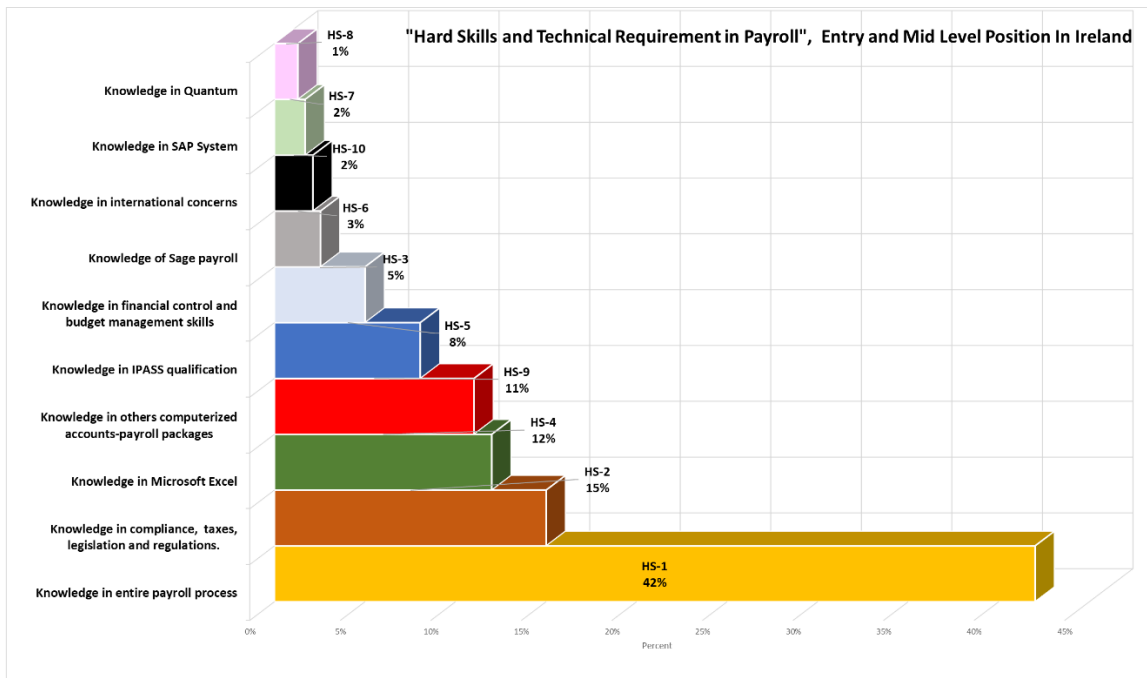
[ 53 ]

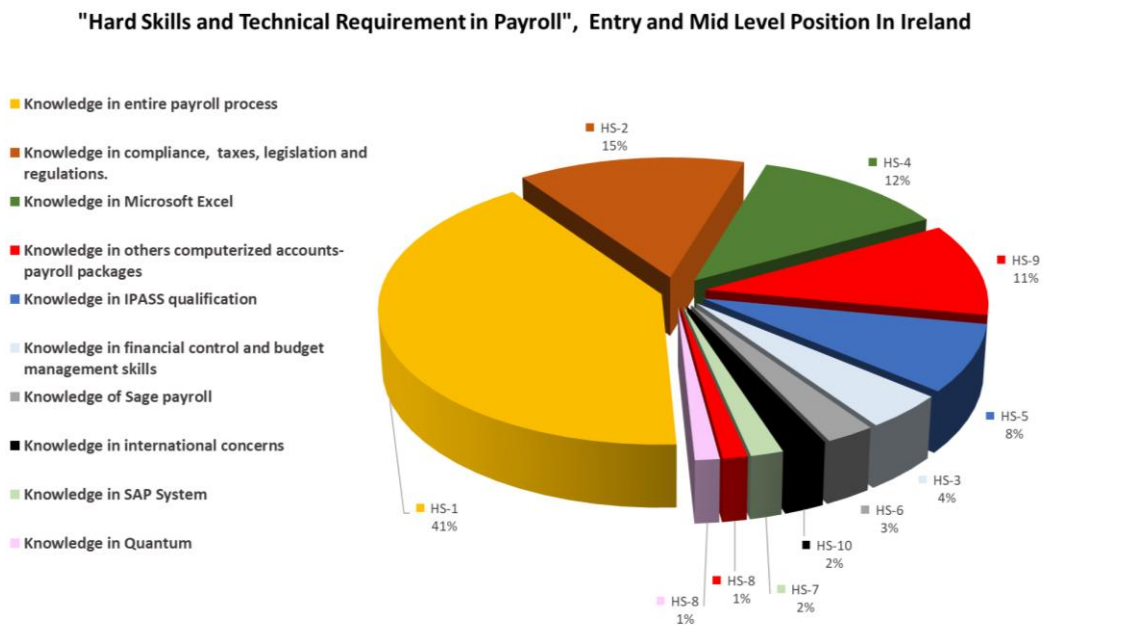*Figure 15.    Bar Chart of Section (B) Hard skills found.*



*Figure 16.    Pie Chart of Section (B) Hard skills found.*

[ 54 ]

*"Knowledge in Entire Payroll Process"*

| | |
|---|---|
| 🟡 | Other requirements included:  1)Payroll Administration; 2) Experience in general accounting work; 3) Experience and Knowledge of all aspects of the payroll process including: 4) BIK; 5) Share awards; 6) Pension; 7) Timesheet; 8) Invoice and Statement Runs; 9) Monthly Sales Reports; 10) Month End Posting; 11) End of Year Audit, 12) Processing Holiday Calculation; and other voluntary and statutory deductions; 13) Understanding of Irish Payroll Systems; 14) Payroll Qualification; 15) Providing security payslips for all employees. |

*"Knowledge in Compliance, Taxes, Legislation and Regulations"*

| | |
|---|---|
| 🟤 | Other requirements included:  1) Understanding of payroll and all payroll processes; 2) Statutory payroll obligations, and regulation; 3) knowledge of payroll Employment legislation; 4) Ensure compliance with all tax rules: 5) Taxation pension; 6) Legal requirements; 7) Data protection & GDPR (General Data Protection Regulation); 8) Supporting year-end audit; 9), PRSI (Pay Related Social Insurance); 10) USC (Universal Social Charge); 11) Compensation and benefits; 12) Protective leave; 13) Bonus; 14) VAT(Value Added Tax )/P30 (Returns)/ and other reports for submission to Revenue. |

*"Knowledge in Financial Control and Budget Management"*

| | |
|---|---|
| 🔵 | Other requirements included: 1) Experience with wide range of information 2) Monitoring cash flow; 3) Fund forecasts; 4) Creation of sales/purchases; 5) Report trends on finances; 6) Business analysis experience; 7) Bookkeeping; 8) Accounts Payable 9) knowledge in Financial Administration. |

*""Knowledge in International payroll concerns""*

| | |
|---|---|
| ⚫ | Other requirements included: 1) Knowledge of International payroll; 2) International Tax knowledge across multiple countries in Europe; 3) Knowledge of local and international regulations; 4) Knowledge of international Rules of countries working across; 5) International-country experience; 6) Knowledge Processing payroll for various EMEA (Europe, Middle East and Africa); 7) Knowledge in APAC (payroll into the Asia Pacific territory) countries. |

*"IT Skills in Payroll Area"*

● Microsoft Excel,   ● IPASS,   ● SAGE,   ● SAP,   ● Quantum

Other requirements included:

Knowledge or profiency in QuickBooks, Processing payment of net pay via EFT and Internet banking.

*Table 8.Hard skills, descriptions in payroll area.*

## 33  Second analysis: Interviews

The analysis explores and identifies key requirements necessary for working in the payroll department in small and medium companies operating in international markets in Ireland. Using a thematic analysis approach, the data collected through interviews was analysed to prioritise key themes and patterns that emerged. The results of this study provide insight and shows strong correlations of the skills required for entry-level and mid-level roles in the payroll department, therefore this section responds with the aims one and two of the research question:

**Objective 2:** *"Identify Irish SMEs which possess a payroll department, with relationships in foreign markets and explore in depth the payroll area through interviews. Companies with their own payroll department."*

In order to understand the current state in this analysis, the following table shows the results of the open-ended interviews, in which it represents a structure body of the themes developed from the interviewees, each participant was named as Participant 1,2,3, etc. as it intends to provide significant content analysis in the words expressed.

| THEME | THEME INVOLVEMENT, OF INTERVIEWEES | SKILLS CORRELATIONS FOUND |
|---|---|---|
| **1.TIME MANAGEMENT** | The Five participants highlighted the importance of Time Management. | +Work under pressure +Stress management +Procedures +Communication |
| **2.ATTENTION TO DETAIL** | Five participants sought attention to detail as a significant requirement. | +Analytical thinking (Problem solving) +Accuracy calculating. +Ability to handle manual adjustments. +Communication |

| | | |
|---|---|---|
| **3.CONFIDENTIALITY** | The Five participants had strong preference for confidentiality. | +Communication<br>+Customer satisfaction |
| **4.KNOWLEDGE OF PAYROLL PROCEDURES** | Four of the Five participants indicated a necessity of payroll knowledge and some experience of payroll procedures. | +Collaboration<br>+Diligence in work<br>+Work effectively<br>+Communication |
| **5.PAYROLL SYSTEMS AND TECHNICAL SKILL** | Four participants expressed some experience of Payroll software programs as needed for the position. | +Problem solving.<br>+Prioritized workload<br>+Communication |
| **6.REGULATIONS, TAX AND PAYRATE** | Four of the participants rated knowledge of Tax and pay rates as important. | +Communication<br>+Networking |

*Table 9.Thematically interviews concepts of participants.*

**Theme 1: Time management**

The results of the interviews show all five participants highlighted time management as a highly important skill to be capable of for a position in entry and mid-level payroll department. From conversation with participants, one strongly mentioned *"Payroll needs to be carried out in a timely fashion and most of the time under pressure where deadlines need to be met."* *(Participant 2)*, Other participants related to this extending the procedures involved to be linked to stress management as pressure points are usually involved in meeting deadlines. Through conversation many participants talked about the need for strong communication and having procedures in place to follow that relieves some of the stresses involved in the job.

**Theme 2: Attention the detail**

The results show all participants in conversation expressed attention to detail as a priority for a position in payroll. *"Working in payroll you have to remember and calculate employee details correctly" (Participant 1)*. Some of the participants recommended keeping up to date with in house procedures when they were focusing in the importance of having a high level of accuracy that is needed for the job of payroll. Another point raised by some participants

was the need for analytical thinking and problem solving as part of the job process. "Problems need to be addressed quickly so the payroll run is not delayed" *(Participant 4).* Two participants remarked the ability to be conversant with manual procedures in the event of software problems in the payroll department.

**Theme 3: Confidentiality**

All five participants rated confidentiality as high quality and three of the participants said, *"This is one of the reasons companies outsource their payroll processes" (Participant 2). "Empathy is very important too, people are sensitive around their wages and pay issues". (Participant 4).* During the interview one participant noted working in a hybrid model can have its advantages as regards confidentiality as they are working offsite and are not readily accessible for verbal conversation by the main workforce. All of the participants' said privacy is an essential part of payroll. *"Confidentially is important as employees are personal about wages" (Participant 5).*

**Theme 4: Knowledge of payroll procedures**

Of payroll Knowledge, four of the five participants talked about the need to have knowledge of payroll procedures while one participant did not see this as a major requirement saying, *"In joining a team instruction would be given" (Participant 4).* Having the ability to work with a high attention to detail was a common theme throughout the conversations with the need to understand the payroll process and be able to communicate with other departments being another with four of the participants, however one participant was of the opinion that for any employee joining a payroll department instruction would be given and they would be allowed to learn the process over time.

**Theme 5: Payroll Systems and Technical skill**

Of the five participants four expressed the need for proficiency in Payroll systems. In an ever-increasing digital environment, it is important to stay current with payroll systems. *"Proof of Certification on specific accounting package in the choose sector, in my opinion" (Participant 1). "If I had a payroll department, I'd be looking for someone that had experience and then these courses behind them so I'm looking at them now and the one that comes mind is IPASS" (Participant 2).* Only one participant brought on board the Job postings results, selecting

IPASS as a strong choice of payroll software certification to have acquired by an employee. Other participants mentioned the requirement of a proficiency in Payroll systems but did not select any one as a particular choice.

**Theme 6: Regulations, tax and payrate**

Some participants have high concerns of tax regulation and the laws surrounding payrates and working hours particularly in these findings as the participants showed more concern in this area rather than giving recommendations. *"I consider it an advantage to have knowledge in Legal issues and laws surrounding pay and working hours, it will all help to make your job easier"* (Participant 1), *"It's important to know the tax and pay rate and the laws of the international market you're operating in"* (Participant 3). Participants had concerns in this area and noted it is one of the reasons companies outsource payroll as they can limit their responsibility by handing over liability to be current in these laws and regulations to the outsourced payroll provider.
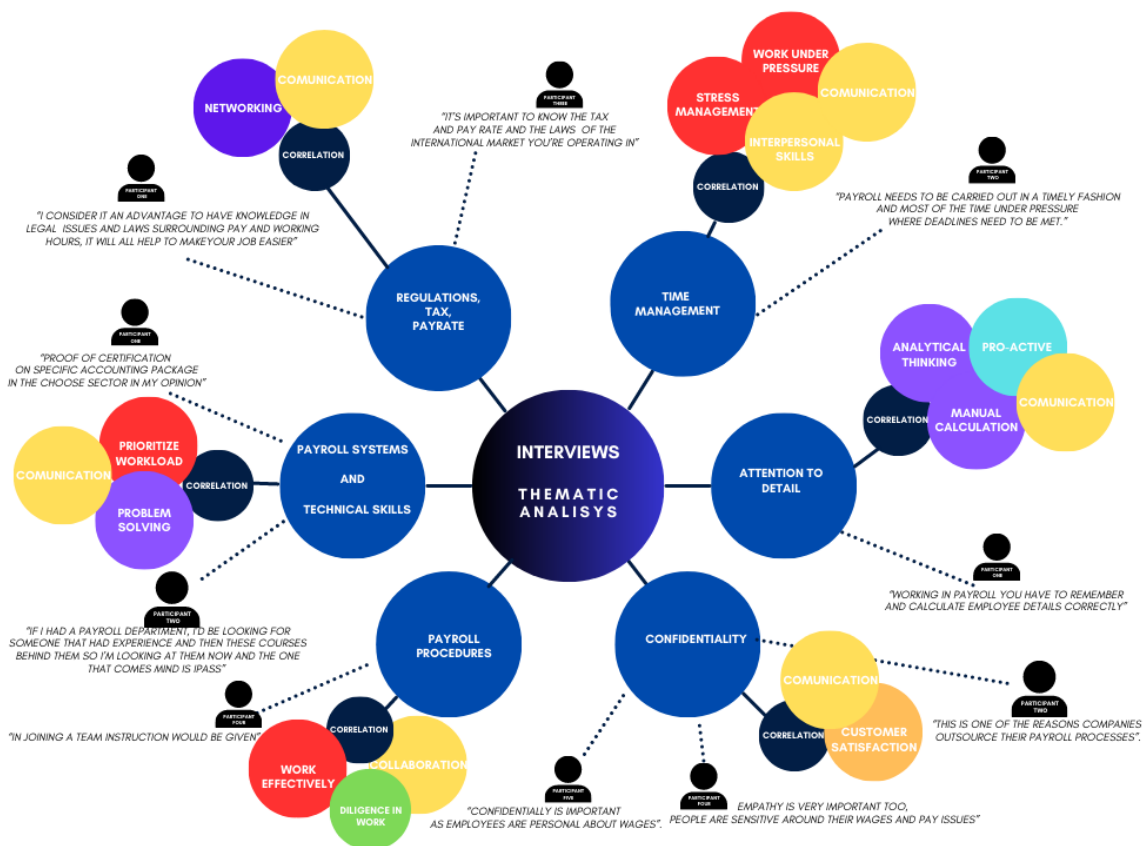


*Figure 17.    Thematically interviews concepts of participants.*

## 34  Conclusion

This study had examined the skills necessary for working in the payroll department in small and medium companies with a primary focus on international markets in Ireland. The researcher utilized a thematic analysis approach to identify and analyse patterns and themes in the data collected through interviews and job postings. According to the information gathered and the results obtained in both analysis of this research it presents the following figure as a set of skills required in Ireland for entry and mid-level position in a payroll department and answers **the Objective 3** and **4**.

> **Objective 3:** *"Analyse the identified job posting skills against the interview findings available in Ireland for payroll professionals to determine if there is a gap that needs to be addressed and use this information for final data collecting."*

In an analysis of both the job postings and interviews the researcher found the job postings reflected the requirements of key skills such as "Communication" and "Payroll processes" where as in the interview's participants where more reflective of human factors and the need for "Time Management" and the ability to "Work under pressure" points to "Meet deadlines" involved in processing payrolls.  From the information gathered and analysed any gap found seems to relate to human and environmental factors where a shortfall of applicants for job vacancies leaves little time to find a good fit employee for the role and applicants could be selected even though they do not meet the full requirements of the job advertised.  Another gap of crucial concern is confidentiality which was mentioned several times in the interviews while did not rank in the job postings.  The table below shows the rating of any skills 5% or more in priority, in the overall result of analysis.  (The value of 5% chosen by the researcher as a minimum value according to other research being of a similar minimum value)

| Rating | Job posting | | Interviews |
|---|---|---|---|
| | **Soft skills** | **Hard skills** | |
| 1 | 1.Communication =20% | 1.Payroll process =41% | 1.Time management |
| 2 | 2.Time management =18% | 2.Complianceand regulations =15% | 2.Attention to detail |
| 3 | 3.Analytical thinking = 14% | 3.Knowledge in Microsoft Excel =12% | 3.Confidentiality |
| 4 | 4.Leadership =12% | 4.Others IT packages =11% | 4.Payroll procedure |

| 5 | 5.Flexibility and adaptability (Stress management) =7% | 5.Knowledge in IPASS =8% | 5.Software programs |
| 6 | 6.Problem-solving =7% | | |
| 7 | 7.Customer service 5% | | |

*Table 10.  Overall Results – Analysis One and Two*

**Objective 4:** Develop a dynamic list of key skills necessary for working in the payroll department in entry and mid-level roles in Irish SMEs with foreign markets based on the findings from the literature review, interviews, and job posting analysis.



*Diagram of skills required for a payroll position by Yanely Vasquez, 2023*
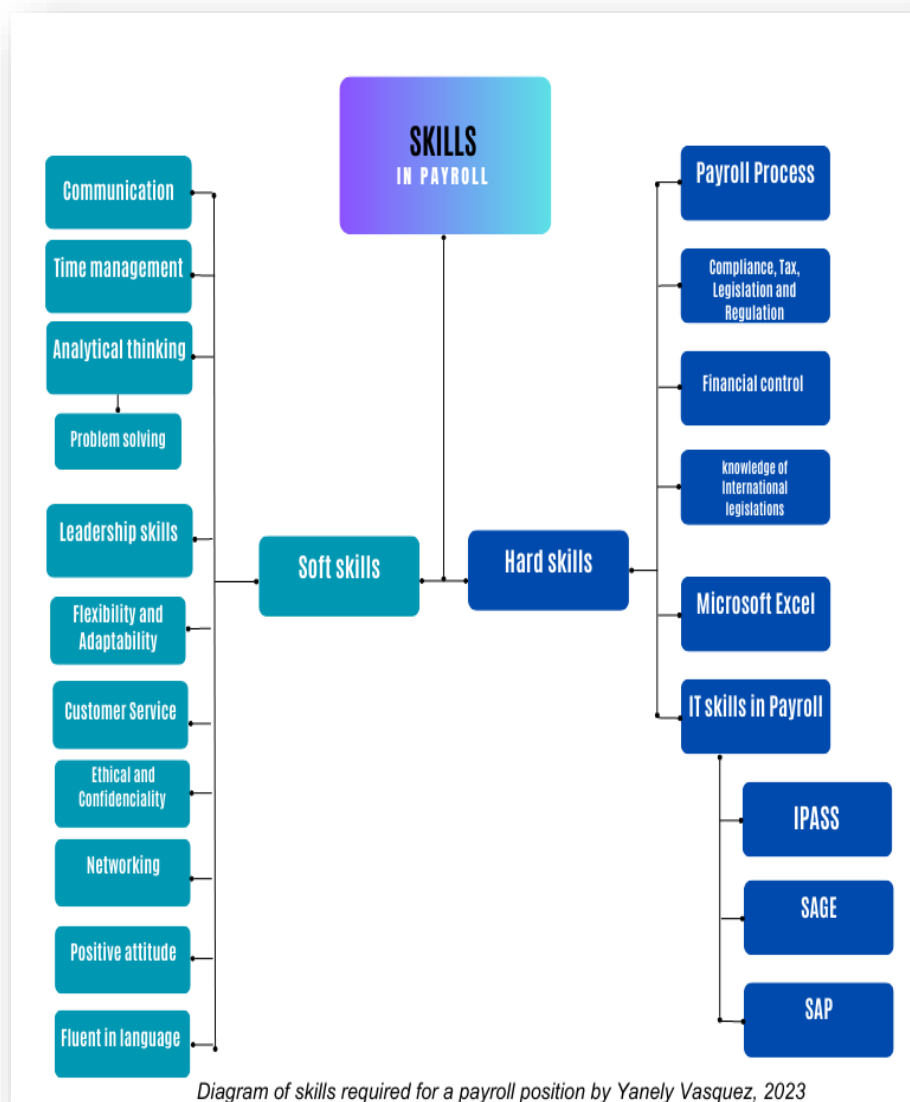
*Figure 18.   Check list of skills*

# Chapter VI:        Discussion of Findings

This research has been carried out in a thorough exploratory approach and analysed in a qualitative method which is presented in chapter 5, this has highlighted some aspects for crucial consideration in the payroll department. The first analysis of Job postings aims to identify the key skills required in the payroll department, while the second analysis through interviews bring some of the meaningful aspect in the area.  These analyses brought together were successful in the aim of reaching an answer to Objective 1, 2, 3 and 4 below, the objective 5 will be presented in the next Chapter (VII) as recommendation. A recapitulation of the objectives is presented below together with the discussion of findings.

> *Objective 1: Identify payroll skill and requirements in Ireland for entry and mid-level positions in SMEs through digital job postings and highlight the results with common requirements. This can be done through online job postings, industry associations, and networking with professionals in the payroll field.*
>
> *Objective 2: Identify Irish SMEs which possess a payroll department, with relationships in foreign markets and explore deep the payroll area through interviews of companies with their own payroll department.*
>
> *Objective 3: Analyse the identified job posting skills against the interview findings in Ireland for payroll professionals to determine if there is a gap that needs to be addressed and use this information for final data collecting.*
>
> *Objective 4: Develop a dynamic list of key skills necessary for working in the payroll department in entry and mid-level roles in Irish SMEs with foreign markets based on the findings from the literature review, interviews, and job posting analysis.*

**In Objective 1:**

The technique used to collect and analyse the data fulfilled the aim to answer the first Objective. From the results were found similarities with previous research carried out such as Osmani, et al. (2020) citing the need for good abilities in "Communication", "Time management" and "Technical computer skills", and Beverley & Natoli (2015) where this research found "Communication and Teamworking" were a highly ranked skill to have

although their sample of research students were found to represent poor abilities in communication but good abilities in Teamworking. However, this research in particular brought a wide range of skills in the findings.

In the results of "Section A Soft Skills" the researchers analysis found some new insights in so far as some skills are categorized and described more specific than in earlier research where they were included as one description. There was evidence of Positive attitude being a requirement of mid-level payroll position. This has not been shown in the Literature review as previous research focused on educational programs and students accounting.

## Findings of Section A (Soft Skills)

| Findings as per Literature review | New Insights as per Analysis |
|---|---|
| 1.Communication skills | 1.Customer Service |
| | 2.Fluent language |
| 2.Teamwork | 1.Networking |
| | 2.Positive attitude |
| 3.Leadership and management skills | (New findings not found) |
| | 1.Analytical thinking skills |
| 4.Problem-solving | 2.Attention to detail |
| 5.Time and stress management skills | 1.Flexibility and adaptability |
| 6. Ethical and professional values | (New findings not found) |

*Table 11.    Comparative findings of Section A (Soft Skills) with previous research.*

According with the results in "Section B Hard Skills" in compliance with the literature review new findings were not found, however, the data suggests that the most important "Hard skills" included, "Payroll process", "Legislation and regulation", "Financial Control, Budget Management" and "Software Systems" which is in agreement with similar studies carried out on "Non-technical skills" (Osmani, et al., 2020) in contrast the researcher found some differences in requirements for Hard Skills, one being the high demand for proficeny in "IPASS payroll System" in Irish Payroll areas, additionally this research has presented a new catagory in the requirements not found in previous researches, this relates particularly to Companies in International business processing payroll and the requirement to meet International regulations in an everchanging global business as Alexander (2023) mentions in her artcule.

In the new findings from this research one insight is the adoption of online accounting and payroll programs, which could replace knowledge or requirements in "hard-Sofwares" in the future.

**Findings of Section B (Hard Skills)**

| Findings as per Literature review | New Insights as per Analysis |
|---|---|
| 1.Payroll Process | (New findings not found) |
| 2.Legislation and Regulations | (New findings not found) |
| 3.Financial Control and Budget Management | (New findings not found) |
| 4. IT skills and Software | |
| A) Microsoft Excel | 1.IPASS |
| B) QuickBooks | 2.Online Software (QuickBooks) |
| C) Sage | |
| D) Sap | |
| E) NetSuite | (Rejected NetSuite) |
| F) Twinfield | (Rejected Twinfield) |
| | **1.International legislation** |

*Table 12.      Comparative findings of Section B (Hard Skills) with previous research.*

**In Objective 2 and 3:**

The technique used to collect and analyse the data fulfilled the aim to answer the Objective Two of this research, a list of companies possessing a payroll department was first complied. Through interviews, it was found "Time management", attention to detail and confidentiality were strong attributes to have.  Bringing on board previous research little was found in the area of privacy and confidentiality.  This is possibly a result of some previous research focusing on specific areas of accounting soft skills such as "Team" and "communication" skills such as Arquero, et al.,(2023), rather than "Time management" and "Legal and Confidentiality". Bringing together the results of Job postings and Interviews highlighted the differences of demanded requirements for the payroll position.

As previous research found the important skills required in the area of the payroll include business skills and "Time management" where Arquero, et al. (2023) focused in the demand of this skill in accounting students recognising that there was a lack of this skill in graduating students. While Osmani, et al. (2020) highlights knowledge of policy procedures along with

"Information and communication" skills as being a requirement in accounting professionals. Even though many of these are consistent with this research findings, changes in environment and in particular Hybrid working models in the post Covid world have brought new challenges to many working procedures including payroll. A higher demand in some areas has brought increased pressures in the skills required and communication needed to meet deadlines in payroll departments. However, the limited data collected of this research method has to be mentioned in the overall process of the result obtained. The interview technique used in this research may not provide the results that a quantitative approach method may provide as can been seen in the method chapter (IV) where many techniques can be used to complete this research. Overall this analysis has results in the professional accounting and payroll skills when in the literature review the likely source of research similar to this is done by Arquero, et al., (2023) in which his study has focused on Soft Skills while other researches such as King & King, (2021) have focused on Team skills and Beverley & Natoli, (2015) who's research is a study of soft and hard skills.

**In Objective 4:**

In achieving the aim of Objective 4 the researcher brought together information from previous research in the literature review and methodology, together with the data collected to develop a list of Skills required for Payroll position in Ireland. The researcher has recategorized the attributes that closely match or fall into the overall area that they form part of. This study states according to the findings that the entry and mid-level skills required are the same for each position. The variables between entry and mid-level come as result of either knowledge or experience or combination of both. The following diagram Figure 19, presents the skills required for entry and mid-level position in Payroll departments in Ireland. This Diagram shows the co-relation of skills required in Payroll and how strongly each one is linked in a perspective of Soft and Hard Skills.
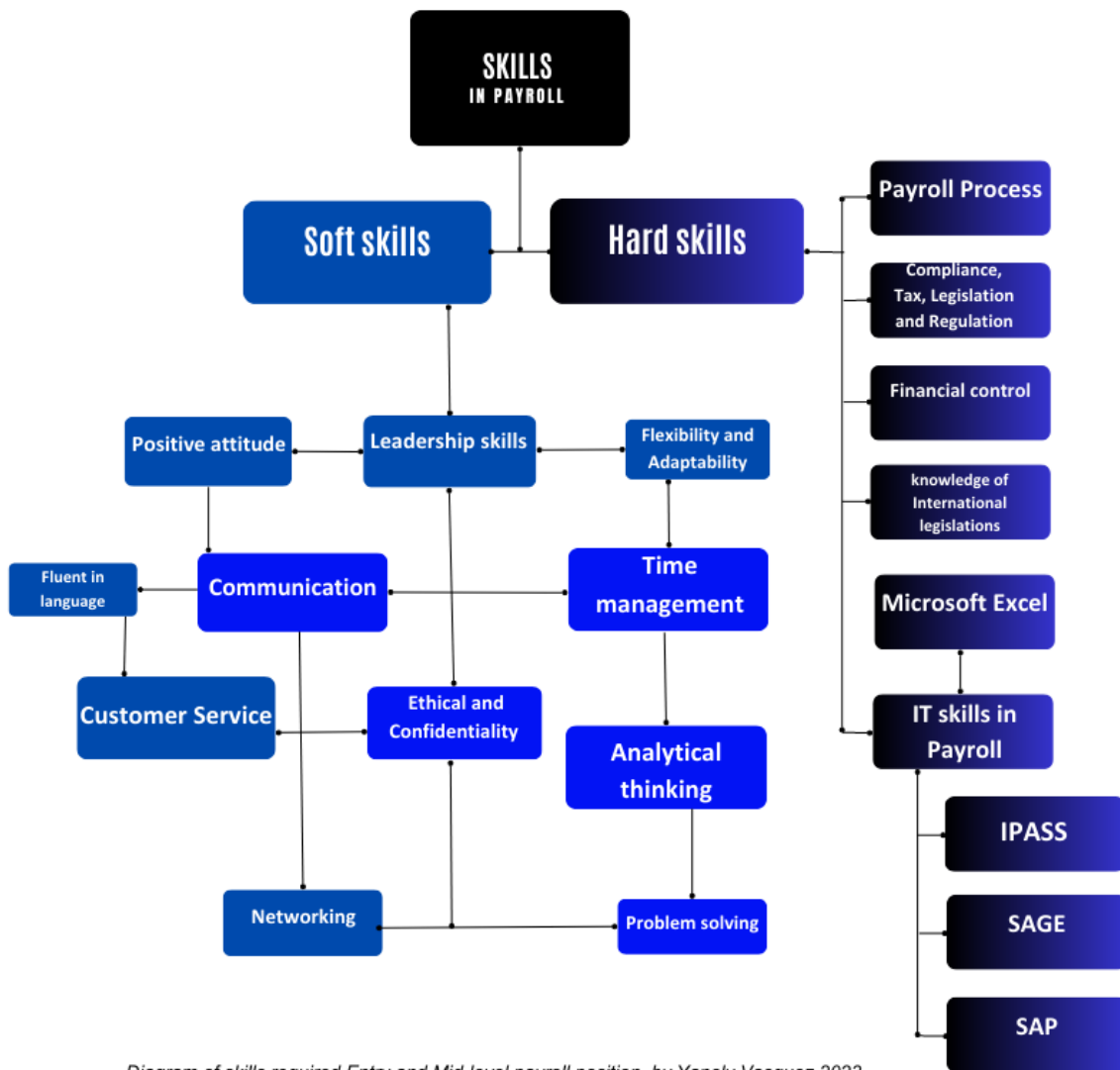
Diagram of skills required Entry and Mid-level payroll position, by Yanely Vasquez 2023

*Figure 19.      List of Skills required for Payroll position in Ireland, Entry and Med-level position.*

This research as per Figure 19, highlights the importance of technical proficiency, tax compliance knowledge, communication skills, and leadership (teamwork) abilities for working in the payroll department of small and medium companies in Ireland with a focus on international markets. While there are some limitations to consider, our findings provide valuable insights into the skills necessary for success in this field and can inform future research.

## 35  The gap

Through analysis of the results this research found many SMEs, only process Payroll for their local employees while using outsourcing payroll services to process payroll for international employees. The researcher found reasons for this being tax and employment laws in foreign jurisdictions. This could impact the skills required for payroll professionals as SME's could have different requirements depending on whether they process their own payroll or outsource.

## 36  Limitation

While these findings are consistent with previous research in this area, there are also some limitations to consider. For example, this study focused exclusively on small and medium companies in Ireland, and it is possible that the key skills necessary for working in the payroll department may differ in other regions or for larger companies. Additionally, this study relied on self-reported data from payroll professionals, which may be subject to bias or inaccuracies. Despite these limitations, in the data collection and analysis the researcher found a wide range of opportunities to develop different topics for research.   Surprisingly the researcher found higher results of qualitative data through the digital postings than the data collected from the interviews.   In contrast the Interviews provided more insights of the human factors and relationships in payroll departments which achieved the aims of the qualitative data. The participants in the interview were more open to employ entry and mid-level professionals not meeting all the requirements of the job postings. However, this may be a factor in the information collected considering the cross-sectional time in this research.

## 37  Further Research

Future researchers can build on the findings by conducting more in-depth studies over a longer period to explore the factors that contribute to the development of these key skills and how they can be effectively taught and assessed in a professional setting.

However, the sample size in this research of job postings and interviews, taking into consideration the cross-sectional timeframe as mentioned could give variable results.

## 38 Conclusion

In conclusion, this chapter discusses the findings of the research conducted on the skills required for payroll professionals in small and medium companies in Ireland, with a focus on international markets. The research employed a thorough exploratory approach and qualitative analysis, combining job postings analysis and interviews to address the research objectives.   Some of the Key findings are presented in the table below.

|  | Summary of key insights |
|---|---|
| **Objective 1** | Key skills required for Payroll in Ireland in both Soft and Hard Skills include Communication, Time Management, Analytical Thinking, Confidentiality, Payroll Processing, Compliance and regulations, IT software skills (Microsoft, IPASS, SAGE, SAP and online Payroll programs. |
| **Objective 2** | Most SMEs with focus on international markets process payroll for their domestic market while outsourcing for foreign payroll due to tax and regulations. |
| **Objective 3** | The result in the analysis partially aligns with previous research. Gaps found where outsourcing payroll for international regulation where |
| **Objective 4** | The results compiled a list of key skills required for Payroll Positions in Ireland.  This can be seen in Figure 9 |
| **Objective 5** | This research would recommend any applicant to be proficient in Payroll related skills and software particularly IPASS and Sage which appear to be widely used in Ireland, however due to new working models online Payroll programs must be a high consideration, secondly to a good communicator, and have strong Time management while also being highly aware of confidentiality. |

*Table 13.    Summary table of key insights*

# Chapter VII: Conclusions and Recommendations

The findings of this study contribute to a deeper understanding of the skills required for entry-level and mid-level roles in the payroll department and can help companies identify areas for improvement in their recruitment and training practices. To finalise this study the Objective 5 presents the recommendations that both Employers and Employees can use to identify the skills necessary for entry-level and mid-level roles in the payroll department.

*Objective 5: Provide recommendations of the necessary skills currently required among entry-level and mid-level payroll professionals, in SMEs with relationship in foreign market.* The findings have important implications for both practitioners and researchers in the field of payroll management.

This research findings offer valuable insights into the skills necessary for success in the payroll department of small and medium companies in Ireland, there are limitations to consider as explained in Chapter (VI). This research could have produced alternative results if methods such as Quantitative method in a deductive approach were used. However, the methods chosen by the researcher in the digital content analysis has produced a strong body of data for the final results. Furthermore, the research identified a gap where many SMEs only process payroll for local employees and outsource payroll for international employees due to tax and employment laws in foreign jurisdictions. This could impact the required skills for payroll professionals, depending on whether companies handle their own payroll or outsource it.

The literature review highlights the importance of understanding the challenges and opportunities associated with payroll management, in this study based in the context of international SMEs in Ireland, it provides information of the labour market, regulatory environment, and technological advancements play significant roles in shaping payroll practices. The growth of the Irish economy, driven by foreign-owned non-financial corporations, emphasizes the importance of SMEs, which generate a significant portion of total employment and contribute to the overall economy.

Payroll accounting has a close relationship with accounting which are discussed in the literature review. International payroll processing requires a thorough understanding of tax regulations, compliance requirements, and reporting obligations in different countries. Moreover, fair remuneration and compliance with ethical and professional values are crucial in ensuring employee satisfaction and productivity.

Education in accounting, including continuous learning and the acquisition of technical and non-technical skills, is emphasized. Technical skills, such as payroll processing, regulatory compliance, financial accounting, and IT proficiency, are necessary for effective payroll management. Non-technical skills, including communication, teamwork, leadership, problem-solving, time and stress management, and ethical values, contribute to the overall effectiveness of payroll professionals.

The demanding factors in the payroll area, such as the COVID-19 pandemic, the adoption of hybrid working models, and the increasing need for IT skills, have highlighted the need for continuous learning in this area. The smooth functioning of finance departments and the satisfaction of employees depend on having the right skills and procedures in place.

This research study underscores the significance of payroll management in the context of SMEs in Ireland. It highlights the need for a comprehensive understanding of labour market dynamics, regulatory compliance, technological advancements, and the development of both technical and non-technical skills. By addressing these aspects, practitioners, researchers, and policymakers can effectively manage payroll operations and ensure compliance with local and international regulations in a globalized business environment.

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