Tampere University of Applied Sciences

# E-Learning in Peru

## Employer perceptions on online distance learning

Maria Ruuskanen

MASTER'S THESIS
June 2020

Master of Business Administration
Educational Leadership

**ABSTRACT**

Tampereen ammattikorkeakoulu
Tampere University of Applied Sciences
Master of Business Administration
Educational Leadership

RUUSKANEN, MARIA
E-Learning in Peru
Employer perceptions on online distance learning

Master's thesis 73 pages, appendices 4 pages
June 2020

---

E-learning has been identified as an enabler for people and organizations to keep up with changes in the global economy and, as such, an attractive option for developing countries, like Peru. A key factor affecting online distance learning motivation and enrolment is social influence. Social influence refers to people's perceptions of what 'important others' think of their choices. Employers are identified as a group whose views and attitudes are particularly influential in society.

A relatively recent study carried out in Lima, Peru revealed that a surprisingly low number of respondents (42% of male respondents and 31 % of female respondents) believed that e-learning was appreciated and valued by companies. Similarly, 26 % of respondents believed that one of the main disadvantages of e-learning was that it was generally less valued than face-to-face education.

The main topic of interest of this study is whether Peruvian employers display dismissive attitudes towards potential employees with Online Distance Learning (ODL) experience. If so, what are their main concerns regarding the ODL study format and whether or not any common factors or trends can be identified to help explain employer attitudes towards ODL?

The data for this study were collected from 81 Peruvian top executives and 5 industry leaders, through an online survey and 5 semi-structured interviews. A mixed-method research approach, which combined descriptive statistics and analytic induction, was used to analyze the data.

Findings reveal a general trend of moderate negative bias against ODL in this respondent group. However, only one-fifth of respondents expressed a dismissive attitude towards potential employees with ODL experience. For one-third of respondents, the prestige of the educational institution accrediting the ODL was highly relevant. These findings suggest that there are 'mitigating factors' that play a key role in attitude formation and decision making. Demographic factors, such as age, appeared to be irrelevant in defining attitudes, while the respondents' personal experience with ODL seemed to correlate positively with open-minded attitudes towards potential employees with ODL experience. Further studies, using random sampling, are recommended.

---

Key words: online distance learning, employer perceptions, social influence

**CONTENTS**

## ABBREVIATIONS AND TERMS

| | |
|---|---|
| FraIM | Frameworks for an Integrated Methodology |
| ISIL | Instituto San Ignacio de Loyola |
| MOOC | Massive Open Online Course |
| ODL | Online Distance Learning |
| SPSS | Statistical Package for Social Sciences |
| UTAUT | Unified Theory of Acceptance and Use of Technology |

**LIST OF TABLES**

**LIST OF FIGURES**

# 1 INTRODUCTION

Peru is a country that suffers from a significant learning gap and digital divide (Libaque-Saenz, 2016). Out of a population of 32 million, over 1.3 million young people or adults cannot read or write (UNESCO, 2018). Consequently, Peru suffers from a low-skilled workforce (OECD, 2016). This slows down industrial diversification, making Peru vulnerable to the price fluctuations of the volatile commodity market.

In the capital city of Lima, where one third of the Peruvian population has settled, and which concentrates a significant portion of the country's wealth, services and infrastructure, the situation is somewhat different. To this Latin American megacity, the global digital economy has arrived, generating a demand for new digital skills. Universities and technical institutes are offering an increasing amount of courses and programs related to ICT, programming, blockchain, Artificial Intelligence and Big Data. A student looking for part-time work has the opportunity to become a 'community manager' instead of waiting tables at a local restaurant. 'Learning-by-doing' is widely recognized in these new fields of expertise, and informal learning and online learning are considered valid ways to gain the skills and competences needed for these jobs. Yet, the same trust and enthusiasm towards online learning would not seem to be translating into other, non-digital sectors and careers. In fact, this distrust is expressed quite explicitly by the highest educational authority, the Ministry of Education, through its policy of denying re-validation to those foreign university degrees that have included over 50 % of e-learning, as well as those foreign postgraduate degrees that have been offered fully online (Law N° 30220, Art. 47).

I believe that it is normative frameworks like these that are affecting attitudes and, consequently, online distance learning enrollment levels in Peru. According to the UTAUT theoretical model developed by Venkatesh and Morris (2003) *social influence* – that is, what 'important others' in society think – affects significantly our willingness to adopt novelty technology. A recent survey (2018) by a Peruvian Technical Institute called Instituto San Ignacio de Loyola (ISIL), which interviewed 600 potential adult online students in the capital city area, revealed that only 42%

of male and 31% of female respondents considered that companies would view educational credentials obtained through e-learning positively. If we consider employer perceptions as an indicator of social influence, it is no surprise, then, that 67% of the respondents would still prefer traditional attendance-based education to e-learning.

However, no one has actually studied employer attitudes towards e-learning in Peru, and the social influence factor is based merely on assumptions and/or generalisations. The main objective of this study is, then, to encourage further research on employer perceptions and attitudes towards e-learning by providing a first sample of descriptive and qualitative data. This data will not aim at generalisations but at gaining valuable insights from a relatively inaccessible group, paving the way for future research in employer perceptions, digital skills and employability.

## 1.1 Study area

The study took place in Lima, Peru, which is a dynamic Latin American capital city with more than 13 million inhabitants. As stated above, over one third of the total population resides in Lima, and this number is on the rise due to people migrating from the poor countryside as well as neighbouring countries, particularly Venezuela. The capital city represents the undisputed political and economic heart of the country. Decentralization, as a political process has yet to be carried out effectively in Peru, and the rural regions continue to suffer from significant inequalities in terms of basic services and infrastructure (Marzi & Zegarra, 2018). While many people living in the Andean highlands are lacking running water, electricity and connectivity, Lima has enjoyed an impressive economic development over the last 20 years, manifested in new high-rise buildings and a fast growing middle class. Foreign companies are investing heavily in sectors like mining, agriculture and services, which has speeded up the internationalization of Lima. This combined with the fact that it is home to the most prestigious research universities in the country, makes Lima clearly more progressive and liberal than the rest of the country. Hence, it has also been a natural frontrunner in embracing the new digital economy.

The fact that my study took place in Lima was a decision mostly conditioned by access. It is also important to note, that the large-scale survey conducted by ISIL (2018) on attitudes towards e-learning, which in many ways has informed my research design, was also limited to the capital area (Lima & Callao). Since the current study aims to shed more light on particular findings of the ISIL study, it was logical for the study area to remain the same. My research design does not allow making any generalisations, and that is not the aim of this study. I do believe, however, that it reveals interesting details about the mind-set of a specific group of employers that can be considered the most highly educated, internationally orientated and, in some cases, progressive in the country. If such an 'elite group' of employers tends to make a clear distinction between attendance-based higher education and e-learning, I consider it highly likely that such a bias will also exist throughout the country. On the other hand, if employers in Lima do not express a clear bias against one of the two study formats, I would still consider it highly likely that such a bias could exist in other regions of the country. This hypothesis is based on the knowledge gap literature, which argues that people with higher socio-economic status are likely to acquire political and scientific knowledge at a faster pace than people with lower socio-economic status (Trichenor et al., 1970). Considering the regional inequalities exposed earlier, we could deduce, then, that attitudes towards e-learning are likely to be more conservative in the Andean highlands and Amazon jungle, which currently represent the most peripheral regions of Peru. However, testing this hypothesis would merit a completely separate, nation-wide study and will not form part of this research.

## 1.2 Study objectives

When choosing a research question it is important to keep in mind the *purpose* of the research. Research questions take the purposes and the objectives of the research and narrow them down into specific, concrete areas of focus. That is, they turn a general purpose into specific questions to which specific, data-driven, concrete answers can be given (Cohen et al., 2018, pp. 165, 186). Dillon (1984, pp. 327-361) has identified seventeen types of research questions, which he refined into four main types: descriptive, explanatory, comparative and normative. In this hierarchy, causal questions are at the top, being closest to the purpose of scientific inquiry.

The purpose of my research is to produce new primary data on Peruvian employers perceptions on e-learning and on how these affect their evaluation of job candidates. A recent study by ISIL shows that widespread pessimism regarding employer attitudes exists, without much concrete evidence to support it. The 'gut feeling' of almost 60 % of the male population and almost 70 % of the female population between 18 and 45 years old, representing socioeconomic strata A/B/C, living in the capital city area, is that e-learning is not viewed positively by companies (ISIL, 2018). Since it is probable that these perceptions are seriously affecting the levels of e-learning enrolment in Peru, I was interested in collecting primary data to answer the following research question and four the sub questions that stem from it:

Research question:

"Do Peruvian employers perceptions of e-learning include a negative bias against job candidates who have obtained their educational credentials through online distance learning (ODL)?"

Sub questions:

SQ1: If so, can this bias be described as a dismissive attitude or as something more moderate?

SQ2: If so, are there demographic factors that reduce this negative bias?

SQ3: If so, are there any 'mitigating factors' that reduce this negative bias?

SQ4: If so, are the employers personal experiences with e-learning associated with this negative bias?

Following Dillon's (1984) hierarchy, my main research question can be categorized as a descriptive research question while the four sub questions would fall in the categories of descriptive, explanatory and causal research questions. Since, according to Dillon, causal questions are those that offer most added value in

scientific research, my study also aims at encouraging further research regarding causality in employer perceptions. Shedding more light on the level of dismissive attitudes among Peruvian employers is an important starting point for this future research, and it represents the main objective of this study.

### 1.3 Ethical concerns

Ensuring accuracy, reliability, coherence, corroboration, validity, reliability and non-traceability are the main ethical concerns related to this study. For accuracy, reliability and coherence, we need to make sure that all the relevant data has been incorporated and that a fair, coherent and defensible representation of the data and their meanings has been presented (Cohen et al., 2018, p. 644). For corroboration, validity and reliability, we need to ensure a high level of transparency throughout our study. By specifying our theoretical assumptions and the research methods we use, others can utilize the same assumptions and methods to either verify or challenge our conclusions (Whyte, 1993, p. 367).

In terms of non-traceability, several steps were taken to guarantee the anonymity and non-identifiability of the respondents, both in relation to the online survey and to the semi-structured interviews. For the online survey, anonymity was addressed by the aggregation of data, while for the semi-structured interviews it was addressed by guaranteeing confidentiality to the respondents. For this end, no one besides the researcher participated in the interviews, transcribing or translating. Interview transcripts were saved and stored using codes instead of names. Finally, participants were referred to in Chapter 4 (‘Research findings’) as ‘they/them’ instead of ‘he/she’ to further protect their identity.

As Cohen et al. (2018) note, all research has an ethical obligation to participants to ensure the principle of *primum non nocere*: do no harm to participants (p. 127). In some studies, this principle is guaranteed through respondent validation. That is, a reciprocation of preliminary research findings, results, discussion and conclusions between the researcher and participants that allows the participants to review, add and critique various aspects of the research (Torrance, 2012, pp. 111-117).

In the context of this study, no respondent validation was performed, since a main topic of interest was the conscious and unconscious negative bias against job candidates whose educational credentials had been obtained through e-learning. As a researcher, I was concerned that showing the transcripts to the interviewees (influential people very much aware of their public image) before data analysis, could lead to a significant level of censorship, which could end up washing out the fine nuances of bias that are the main focus of this study. Hence, all interviews were handled with great care and caution, in order to protect the identity of the interviewees. This included not involving anyone besides the researcher in the process of sampling, interviewing, transcribing or handling the interview data.

## 1.4 Thesis outline

This study is organised as follows. In Chapter 2 I will we provide a brief but comprehensive literature review related to e-learning, employer perceptions, social influence and novelty technology adoption, which will serve as the theoretical framework for my research design. It will also situate the research questions that I posed earlier inside a wider academic debate. In Chapter 3, I will present the research methodology selected for this study. I will also analyse the limitations of my sampling and of the methods chosen. In Chapter 4, I will present my research findings organized by research questions/hypotheses. In Chapter 5, I will summarize and interpret my findings, make some suggestions for further research and engage in a discussion regarding the future of e-learning in Peru.

# 2 E-LEARNING AND EMPLOYER PERCEPTIONS

E-learning has been identified as an enabler for people and organizations to keep up with changes in the global economy, particularly in the internet era (Carey and Blatnik, 2005). Being economical, flexible, and easy to deliver without the constraints of time and distance, e-learning is an attractive option for developing countries, like Peru (Torres Maldonado et al., 2011).

As presented above, negative employer perceptions could be affecting e-learning enrollment and motivation in Peru, representing a bottleneck for institutions wanting to promote e-learning as a strategy to bridge socio-economic gaps. This is clearly highlighted in the *Unified Theory of Acceptance and Use of Technology* (UTAUT), which is a theoretical model focused on explaining why people choose to adopt novelty technology, such as e-learning portals, into their everyday lives. However, before turning to the theory that supports the linkage between employer perceptions and the proliferation of e-learning in a given country, let us define the key concepts present in this study.

## 2.1 Defining concepts

The key concepts used throughout this study are ‘e-learning’ and ‘employer perceptions’. Both can be interpreted in numerous ways, which is why we will start by comparing existing literature for a definition that is the most appropriate for the purpose of this study.

### 2.1.1 E-learning

As learning technologies and the related theories continue to evolve, practitioners and researchers have yet to agree on common definitions and terminologies (Lowenthal & Wilson, 2010; Volery & Lord, 2000). Consequently, concepts like ‘e-learning’ and ‘online distance learning’ are often used interchangeably in aca-

demic literature (Moore et al., 2011). Some differences can be identified, however. While e-learning might not allow any real-time (synchronic) interaction between student and teacher, online distance learning is more associated with live webinars and cloud meetings between student and teacher, as well as peers. It is for this reason that I will refer more to online distance learning (ODL), especially in the final discussion chapter of this study, where I raise specific questions related to bridging socio-economic gaps and democratizing education in Peru.

Agreeing on one common terminology has not been the only academic challenge related to e-learning. Attempts to define e-learning as a theoretical construct have also been characterized by a strong lack of consensus. According to the literature review conducted by Sangrà et al. (2012), the definitions of e-learning found in academic writing can be roughly divided into four categories: 1) *technology-driven*, 2) *delivery-system-oriented*, 3) *communication-oriented*, and 4) *educational-paradigm-oriented*. While the first category emphasises the technological aspects of e-learning, the last category defines e-learning as a new way of learning or as an improvement on an existing educational paradigm (Sangrà et al., 2012, pp. 148-149). The four main ways to define e-learning are presented in Table 2.1, illustrated by examples.

For the purpose of this study, I consider as the most practical choice to go with the definition used by ISIL, since in some ways my research represents a follow-up study to their publication. The definition used by ISIL (2018) is the following:

> E-learning is understood as the transmission of knowledge by means of an educational platform which one can access through the Internet. E-learning can be free of charge or paid for and its duration can vary. (p. 8)

In the light of the literature review conducted by Sagrà et al. (2012), this definition would fall under the ‘delivery-system-oriented’ category, emphasizing the accessibility of resources and not the results of any achievements. Hence, it fails to underline the communication, interaction and collaboration that, in my experience, is characteristic of virtual learning as well as the ‘disruptive’ nature of e-

learning when it is considered as a chance to do things differently (a good example being the opportunities it offers for rhizomatic learning).

TABLE 2. 1 Four ways to define e-learning based on Sagrà et al. (2012)

| *Type* | *Focused on* | *Example* |
|---|---|---|
| Technology-driven definition | Technological aspect of e-learning | "E-learning is the use of technology to deliver learning and training programs" (E-learning portal, 2009) |
| Delivery-system-oriented definition | The accessibility of resources | "E-learning is an on-line education defined as the self-paced or real-time delivery of training and education over the internet to an end-user device" (Lee & Lee, 2006) |
| Communication-oriented definition | E-learning as a communication, interaction, and collaboration tool | "E-learning is learning based on information and communication technologies with pedagogical interaction between students and the content, students and the instructors or among students through the web" (González-Videgaray, 2007) |
| Educational-paradigm-oriented definition | E-learning as a new way of learning or as an improvement on an existing educational paradigm | "E-learning refers to educational processes that utilize information and communications technology to mediate synchronous as well as asynchronous learning and teaching activities" (Jereb & Šmitek, 2006).<br>"E-learning does not represent more of the same (...) [It is] about doing things differently" (Garrison & Anderson, 2003, p. 7) |

However, despite of my personal preferences for defining e-learning in a way that emphasizes its non-technology-related aspects (i.e. educational-paradigm-oriented definition), ISIL's definition will serve the purpose of this study. Moreover, maintaining the same definition of e-learning in both survey instruments will undoubtedly benefit a comparative analysis between the two studies, which will form part of my conclusions.

### 2.1.2 Employer perceptions

In this study employers are defined as those top executives in employing organisations whose “attitudes towards jobseekers are crucial in the final recruitment decisions” and who are “effectively acting as gatekeeper to the labour market’’ (Cai, 2013, p. 462).

Employers perceptions or employers beliefs are understood as their cognitive frames, which ‘‘enter into the full range of information-processing activities, from determining what information will receive attention, how it will be encoded, how it will be retained, retrieved, and organised into memory, to how it will be interpreted, thus affecting evaluations, judgements, predictions, and inferences’’ (Scott, 2008, p. 57).

There are multiple factors and mechanisms that affect employer perceptions and beliefs, which have been a topic of interest for universities since the 1990s, when the career success of graduates started to be used as a key indicator to measure the quality of education. Since then, more studies have started to take account of employers views for identifying what higher education should be providing. However, the results are diverse and even controversial. For instance, as discovered by Teichler (2009, p. 11), employers have different perceptions of workers with similar educational qualifications, and their views vary according to their different traditions, political inclinations and other factors.

In the context of this study, I find the conceptual framework developed by Cai (2013) particular useful. It is based on Bailly’s (2008) model of employers beliefs regarding the potential of degree holders. He describes a trial and error process during which employers perceptions develop through learning from the real performance of recruited employees who hold certain educational credentials. This model questions the basic assumptions of both traditional human capital theory and job market signalling theory, which suggest that employers are able to make an objective and rational evaluation of the employees or job-seekers ability, or at least get a clear signal of it, based on specific educational credentials (Cai, 2013, p. 459).

Bailly (2008) argues that the validity of both human capital and job market signalling hypotheses depends on the employers belief systems. As belief systems control the individuals unconscious, they also govern employers decisions on employment. According to Bailly, employers make decisions on recruitment based on their beliefs in three stages. The first stage includes evaluating *initial signal*s (i.e. making an unexperienced decision based heavily on the candidates educational credentials). The second stage can be described as *trial and error*, where the employer goes through a process of 'private learning', while all market participants who observe the employee's actual job performance go through a process of 'public learning'. In the third stage, *equilibrium* is reached, as the employer has finally learned the candidate's 'true' value (either by adjusting his original beliefs or by getting validation for them).

Cai (2013) has argued, however, that Bailly's model suffers from several limitations. These include the fact that there is no explanation on how initial signals are developed and perceived by the employers. Second, it does not theoretically explain the mechanisms underlying the public learning process. Third, it is unclear whether there are other factors possibly affecting the employers beliefs. Hence, he suggests an extension to Bailly's conceptualisation to a more comprehensive framework for understanding how employers make decisions on recruitment based on their beliefs, using insights from the new institutionalism. From the perspective of institutionalism, employers beliefs are developed within institutional frameworks. What affects the creation of an institutional framework is a process of system structuring. Compared to actor structuring, system structuring takes a longer time. It takes place at the level of an entire group, or in an organisational field. When some employers start to hire graduates with e-learning credentials, the performance outcomes of the employees will become benchmarks for the employers to adjust their beliefs. This has been described as a process of 'private learning'. The consequences of private learning can also have an impact on the reproduction of institutions in the organisational field through public learning. For instance, some employers may imitate other companies that have been successful in recruiting people with e-learning qualifications in terms of enhancing produc-

tivity. As such, the collective sense making is developed through mimetic learning, which occurs when actors facing uncertainty try to emulate successful organisations as a solution.

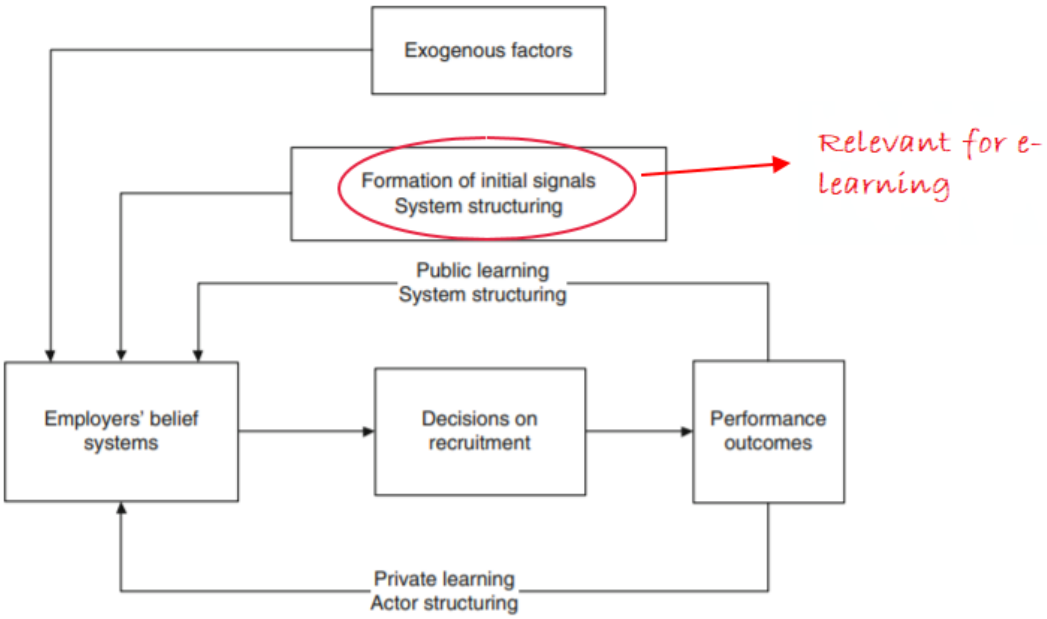



FIGURE 2. 1 Factors and mechanisms affecting employers perceptions regarding the potential of job-seekers (Cai, 2013, based on Bailly, 2008)

Cai's conceptual framework (2013) complements Bailly's model (2008) by recognizing additional factors and mechanisms, such as 'exogenous factors', 'system structuring', and 'actor structuring', that affect employers belief systems before, during and after they make recruitment decisions (see Figure 2.1). I have circled in red the particular stage where, according to this theory, most institutional efforts should be concentrated to influence employers beliefs regarding e-learning qualifications. This analysis is useful, as I now move on to examine *why* employer perceptions are so important for the successful proliferation of e-learning in Peru.

## 2.2 Why do employer perceptions matter?

Now that we have more clarity on the factors and mechanisms that affect employers perceptions of job candidates, it is time to focus on why employer perceptions actually matter to the future of e-learning. To me, this topic represents a

classic ‘chicken or the egg’ –dilemma. That is, it is unlikely that effective e-learning proliferation will happen if employers do not appreciate e-learning, and, on the other hand, employers are unlikely to appreciate e-learning if they do not go through the process of trial and error, suggested by Cai (2013), which can only happen if they actually interact with job candidates with e-learning credentials.

This analysis is supported by several theoretical models that address consumers adoption of new technologies (Lai, 2017). For the purpose of this study, I will refer to one of the latest theories, known as UTAUT (Unified Theory of Acceptance and Use of Technology). After presenting how, in theory, employer perceptions relate to e-learning motivation and enrolment, I will move on to highlight this fact using recent empirical studies conducted in Peru.

### 2.2.1 The UTAUT model: linking social influence with intention of use

The Unified Theory of Acceptance and Use of Technology (UTAUT) was developed by Venkatesh, Morris, Davis and Davis (2003) through a review and merger of different theories, based on several previous technology adoption models (Lai, 2017). The model states that four key constructs – performance expectancy, effort expectancy, social influence, and facilitating conditions – predict technology usage intention and behaviour in consumers (Venkatesh et al., 2003). The UTAUT model is also suitable for analysing e-learning portal acceptance, as was done by Torres Maldonado et al. (2011) in a study conducted in Peru. In addition to the aforementioned four key constructs, the UTAUT model also hypothesizes the role of four key moderator variables: gender, age, experience, and voluntariness of use (Torres Maldonado et al., 2011, cited in Ruuskanen et al., 2019).

The UTAUT model defines *performance expectancy* as “the degree to which an individual believes that using the system will help him or her gain the desired performance” (Venkatesh et al., 2003, p. 447). According to Lai’s interpretation (2017) performance expectancy can also be viewed as a combination of perceived usefulness, extrinsic motivation, job-fit, relative advantage and outcome expectations. The second key construct, *effort expectancy*, is defined by the UTAUT model as “the degree of ease associated with the use of the system”

(Venkatesh et al., 2003, p. 450), which refers to a combination of perceived ease of use, complexity associated with the task and actual ease of use (Torres Maldonado et al., 2011). *Social influence* is defined by UTAUT as "the degree to which an individual perceives that important others believe he or she should use the new system", while *facilitating conditions* are defined as "the degree to which an individual believes that an organisational and technical infrastructure exists to support use of the system" (Venkatesh et al., 2003, pp. 451, 453, cited in Ruuskanen et al., 2019). According to Venkatesh and Davis (2000), in a context where technology use is mandatory, the role of social influence weakens over time and eventually becomes irrelevant with constant technology usage. However, it represents an important factor in the early stages of technology usage.

In this study, I will argue that Peru is still in the early stages of e-learning platform usage, due to a significant digital divide. Consequently, social influence – understood as the degree to which potential users perceive that important others (such as employers) believe they should use the system – continues to be an important factor affecting behavioural intentions in Peru. This claim is also supported by empirical studies that I will turn to next. Figure 2.2 aims to illustrate the interplay between the different theoretical constructs and moderating variables of the UTAUT model when linked to the topic of e-learning.

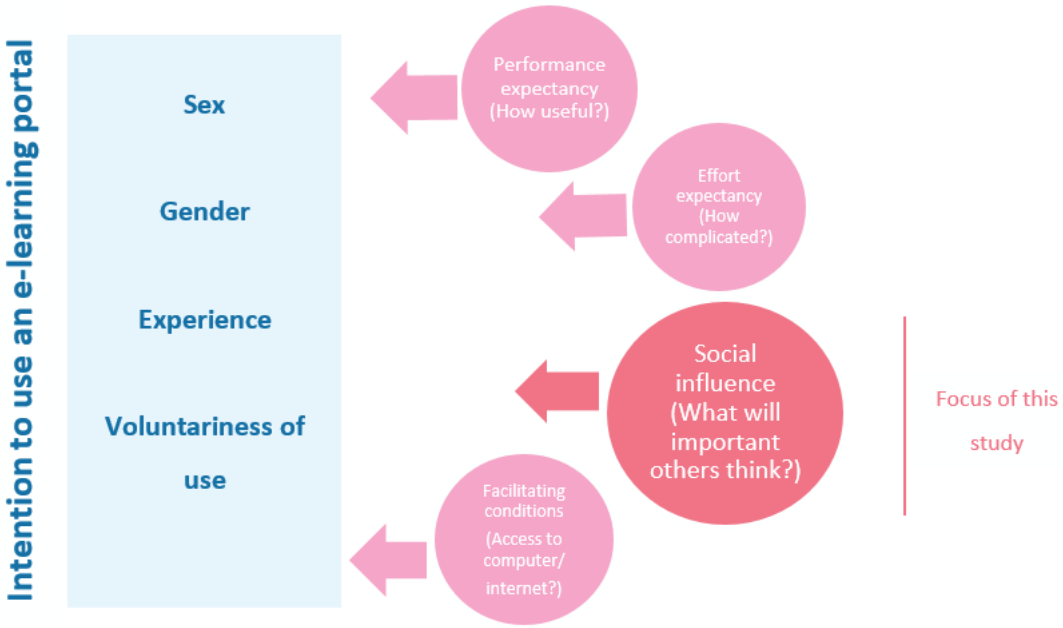



FIGURE 2. 2 How social influence affects the intention to use an e-learning portal (based on the UTAUT model developed by Venkatesh, Morris, Davis and Davis [2003]).

### 2.2.2 Previous studies conducted in Peru

One of the starting points of my study is the argument that employer perceptions are important and that they should be taken into account in order to successfully disseminate e-learning in Peru. My affirmation that employer perceptions matter is founded, on one hand, on the UTAUT model, which claims that people adopting novelty technology care about what 'important others' (such as employers) think. On the other hand, it is supported by a recent survey conducted in Peru regarding potential adult students habits and attitudes towards e-learning (ISIL, 2018).

The fact that the UTAUT model has been empirically validated in the Peruvian context is worth a special mention here. In 2011, UTAUT was adopted by Torres Maldonado, Gohar, Moon and Jae for a study on e-learning motivation and educational portal acceptance in Peru. The objective of the study was to empirically validate a modified UTAUT model by adding an 'e-learning motivation' construct in the Peruvian context. The study found that 'e-learning motivation' and 'social influence' had a positive effect on behavioural intention, while 'facilitating condition' had no effect on e-learning portal use. Furthermore, use behaviour had a positive influence on e-learning motivation while 'region' played a moderating role and gender did not. (Torres Maldonado et al., 2011, cited in Ruuskanen et al., 2019, p. 470.)

While the study by Torres Maldonado et al. (2011) shows how the 'social influence' construct affects the intention of use in relation to e-learning portals in Peru, the fact that the study was based on surveys conducted in schools, takes it quite far from my main line of argument. Hence, I would like to bring up a second recent study undertaken in Peru, which I feel will help support my claim that employer perceptions matter in e-learning proliferation.

The study titled "*Habits and Perceptions of E-learning*", was published by a private Peruvian Technical Institute called ISIL (*Instituto San Ignacio de Loyola*) in May of 2018. Data was collected from 600 potential adult students in the capital city of Lima and its sphere of influence (Callao), with the objective of learning more of its target audiences habits and attitudes towards online distance learning.

The majority of respondents expressed a preference for attendance-based education over online distance learning, and no direct correlation was found between Internet use and positive e-learning attitudes (Ruuskanen et al., 2019, p. 470). The fact that a significant amount of respondents (43%), living in the highly connected capital city and representing socioeconomic strata A/B/C, were hesitant or unwilling to try online distance learning, regardless of connectivity and access, represents, to me, the most surprising finding. However, it becomes much less surprising, if we use the UTAUT model as our framework. If we consider that social influence and intention of use are connected, we can draw the conclusion that those respondents unfamiliar with e-learning, who are hesitant to try it, could be feeling unmotivated by their belief that e-learning is not positively viewed by companies. If that were the case, could an empirical study that collected evidence on the real views and perceptions of a relatively large group of companies be helpful in busting myths and generating trust and curiosity towards new ways of learning?

I believe the answer is ‘yes’, which is why I decided to undertake the process of recollecting a relatively large sample from a traditionally difficult to reach ‘elite group’ of employers. While not aiming at generalisations, I strived for collecting valuable information that would be useful for future research, both for its scope and depth. This required coming up with a practical and viable research design that would still be ‘fit for purpose’. It is to this design process, that I turn to next.

# 3 METHODOLOGY

## 3.1 Methodological approach

When planning research, it is important to have a clear understanding about the differences between methodology and methods, approaches and instruments, styles of research and ways of collecting data. A methodological approach refers to the *type* of research we want to undertake (for example a survey, an experiment, an in-depth ethnography, action research, case study research, testing and assessment) while a research method refers to the specific data collection *instruments* we want to use (for example interviews, questionnaires, observation, tests, accounts, biographies, case studies, role-playing, simulations or personal constructions). The chosen methodological approach defines how we find out about the phenomenon and justifies the research methods used. (Cohen et al., 2018, p.186.)

The methodological approach I chose for this study is the mixed methods approach, which is rooted on the widely accepted idea that different methodological approaches can be combined in social and educational research (i.e. Tashakkori and Tedllie, 2003; Creswell and Plano Clark, 2007). Based on this basic principle, David Plowright (2011) has developed a specific structure for conducting small-scale social and educational research projects, which he calls the “Frameworks for an Integrated Methodology” (FraIM). The FraIM rejects the traditional dichotomy between ‘qualitative methods’ and ‘quantitative methods’ and aims at supporting the *integration* of different elements of the research process to ensure the effective and successful study of educational or social phenomena (p. 15).

As Figure 3.1 shows, there are a number of stages in the FraIM, the starting point being the definition of the main research question. It is this choice that will later guide the choice of cases/participants, the methods of data collection to be used, the type of data to be collected and how the data will be analysed.

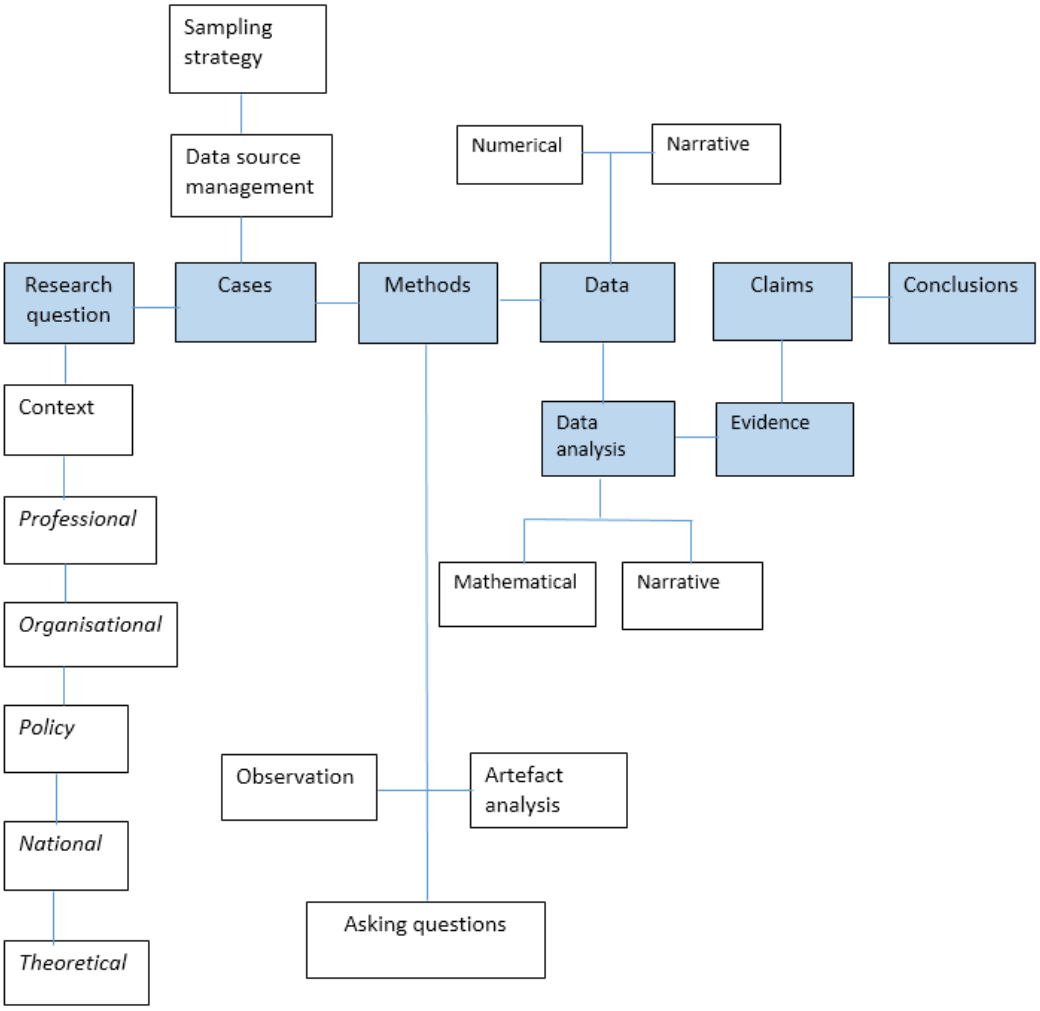



FIGURE 3. 1 The main FraIM for conducting small-scale educational research by David Plowright (2011)

According to Plowrigth (2011):

> Unlike most approaches to research, the FraIM does not dictate that you have a particular philosophical position prior to beginning the research. It encourages a more responsive, flexible and open-minded attitude based on answering one or more research questions, finding a solution to a problem or addressing an important issue (p. 19.)

Plowright also emphasises that the process is not necessarily as linear as Figure 3.1 suggests, but can also include a process of iteration, where the researcher will move from one stage to the next and then back again. What FraIM pretends to offer, then, is a template, to help the thinking process and to help guide the research process (p. 20).

My mixed method research relied heavily on the survey methodology. According to Cohen et al. (2018, p. 334), a survey is useful, among other things, for supporting or refuting hypotheses about the target population. This fits well with the overall objective of this study, which is to shed more light on employer attitudes towards e-learning qualifications – assumed negative by the majority of potential adult online students in Lima (ISIL, 2018).

### 3.2 Operationalization of key variables

Research questions can ask 'what', 'who', 'why', 'when', 'where' and 'how' (Newby, 2010, p.65-6). In this study, I am concentrating on the 'what' (employer perceptions) and the 'why' (linkages with demographic factors, mitigating factors, and personal experiences).

The first step in the efforts to answer my research question and four sub questions was the operationalization of the key variables. Operationalization is the process of strictly defining variables into measurable factors (Cohen et al., 2018, p. 170). This allows others to replicate the research, even when fuzzy concepts, like 'perceptions', are used. It also allows the researcher to perform statistical analysis of the results. Hence, the operationalization of key variables was an important first step in my research and a precondition for designing my online questionnaire (see Appendix 1).

An example of operationalization is to define, for example, who are the 'Peruvian employers' and what is meant by 'perceptions of e-learning', before attempting to answer the research question:

*Do Peruvian employers perceptions of e-learning include a negative bias against job candidates who have obtained their educational credentials through online distance learning (ODL)?*

In terms of the sub questions,

- *If so, can this bias be described as a dismissive attitude or as something more moderate?*

- *If so, are there demographic factors that reduce this negative bias?*
- *If so, are there any 'mitigating factors' that reduce this negative bias?*
- *If so, are the employers personal experiences with e-learning associated with this negative bias?*

I needed to define 'personal experience with e-learning' before attempting to answer them. A systematic operationalization of key variables ensures that research questions can be answered and hypotheses can be tested in a concrete and data-driven way (Cohen et al., 2018, p. 170-1).

The five hypotheses derived from my research question and four sub questions, all of which will be tested using descriptive statistics, are the following:

H1 = Employers display a dismissive attitude towards job-seekers with educational credentials obtained through ODL.

H2 = Employers negative bias against ODL is mitigated by the fact that the accrediting institution is prestigious.

H3 = Employers negative bias against ODL is mitigated by the fact that the accrediting institution is foreign.

H4 = Employers do not believe that ODL offers effective networking.

H5 = There exists a linkage between employers personal experience with e-learning and their level of bias against job candidates who have obtained their educational credentials through ODL.

The operationalization of my key variables is presented in Table 3.1. Association between the independent variable and the dependent variables were tested for size of effect using the SPSS software (see Chapter 4 for 'Research findings').

TABLE 3. 1 Operationalization of key variables

| Key variable | Type | Operationalization |
|---|---|---|
| *'Peruvian employer'* | Case | A recruited sample of 81 top executives (people with significant decision-making power inside their respective organizations, who act as gatekeepers to the employment market).<br><br>Respondents were adult males and females who were currently working or had worked in the last 24 months in a top management position in a reputable Peruvian or multinational company, specialized technical government agency or well-established NGO, based in Lima, Peru.<br><br>Employers were asked for the following demographic data: sex, age group (five categories), educational level, company size and employment sector (see Appendix 1). |
| *'Personal experience with e-learning'* | Independent variable | E-learning was defined in the survey as "the transmission of knowledge by means of an educational platform which one can access through the Internet. E-learning can be free of charge or paid for and its duration can vary" (ISIL, 2018.)<br><br>Personal experience with e-learning was operationalized through the online questionnaire question Q5 (see Appendix 1), were respondents were first introduced to the definition of e-learning used for this study, followed by:<br><br>"Considering the definition above, have you ever engaged in e-learning to study a course/subject/program, no matter if you concluded the studies or not?" |
| *'Perceptions of e-learning'* | Various dependent variables | Employer perceptions of virtual education were operationalized by using Q9, which was a multiple response question in the online questionnaire (see Appendix 1). Respondents could choose any combination of the following options (i.e. dependent variables):<br><br>"I value face-to-face education over e-learning."<br><br>"I value both equally if the e-learning has been provided by an institution I consider prestigious."<br><br>"I value international higher education in a special way, no matter if it is online or on campus."<br><br>"I think that e-learning does not offer the same opportunities to network professionally."<br><br>"I evaluate the candidates study credentials case by case, without preconceived preferences regarding the study format (online or on campus)."<br><br>"None of these options reflect my attitudes."<br><br>The decision to operationalize "perceptions of e-learning" this way was based on the five hypotheses presented in Section 3.2. |

### 3.3 Data acquisition

As mentioned before, my research design follows the Framework for an Integrated Methodology (FraIM) developed by David Plowright (2011). Research based on the FraIM argues that there are three types of data generation and collection: observation, asking questions and artefact analysis, which refers to objects or events that are produced by people. Examples of artefact analysis include publicity brochures, diaries, theatre and dance (p. 27). For the purpose of this study, I chose the second type of data generation and collection: to ask questions.

The process of asking questions was done mainly through an online survey. It is important to note that in online surveys the researcher uses non-probability, volunteer sampling, which may reduce the generalizability of the findings (Cohen et al. 2018, p.372). This was also the case with my survey, which targeted ~100 top executives working in companies and organizations located in Peru. These individuals were selected from the professional contact list I have built during my 8-year-long professional career as a Political and Commercial Advisor at the Finnish Embassy in Lima. I was careful to choose representatives of reputable companies and organizations of different sizes, ranging from SMEs to multinationals. I also made a special effort to target a significant amount of female respondents, as well as people representing different age groups. All targeted individuals were currently holding or had recently held a position of significant decision-making power inside their respective organizations (i.e. CEOs, Directors and top executives).

The online survey was complemented by five semi-structured, face-to-face interviews, categorized by Hochschild (2009) as ‘elite interviews’. This data collection method was crucial not only for digging deeper into the topics that were briefly covered in the survey, but also to get an indication if something crucial was left out of the questionnaire. According to Hochschild, elite interviews complement surveys in that they can confirm, disconfirm or transform one’s hypothesis, setting up alternative research strategies or making sense of what has been extracted from those strategies.

Finally, it is important to note that the integrated approach (FraIM), presented in Section 3.1, underlines the fact that narrative data can be transformed into numerical information and numerical data can be described using narrative (Plowright, 2011, p. 32). Hence, no strict lines should be drawn for the analysis only based on the data collection method.

### 3.3.1 Sampling

Sampling bias is a major concern for online surveys, just like for any other type of surveys (Cohen et al., 2018, p. 372). Inadequate sampling can over-represent or under-represent a certain respondent-type. It will also undermine attempts to analyse data using inferential statistics, which aims at reaching conclusions about the general population (in this case, *all* Peruvian employers).

Since I had decided to restrict my data analysis to descriptive statistics, random sampling was not required. Instead, I used a so-called 'purposive sample' (Morse, 2004), where potential respondents were classified based on their employer and their position inside that organization. After this first classification, the respondents were recruited (or not) for the questionnaire. My classification process did not include a preliminary classification questionnaire, which is common practice. Instead, my recruitment of respondents was based on the contact list I had built on the social media 'LinkedIn' during my 8-year-long career at the Finnish Embassy in Lima. My classification process included going through all of the +2,200 professional profiles on my contact list, screening them for current employer and job title. The age and the sex of the respondents also played a part in the classification process, since I aimed at a diverse sample. The main effort was put, however, on trying to find individuals with a lot of decision-making power inside their respective organizations. In other words, I aimed to compile a list of individuals that could somehow represent the views of 'Peruvian employers'. The recruited sampling was also complemented at one point by 'viral sampling', also known as snowball, network, chain, referral and reputational sampling (Blaikie, 2000, p. 205). This type of sampling took place when one of the top executives I had recruited as a respondent offered to share the link to my survey in a WhatsApp

group consisting of members of the board of an important Chamber of Commerce. After evaluating the prestige and representativeness of the institution, I accepted the offer.

According to Cohen et al. (2018, p. 372) opportunity samples (of particular groups) may restrict the generalizability of the research. However, this may be no worse than in conventional research, and may not be a problem, as long as it is acknowledged. In terms of sample size, I followed the general rule in statistics of 'the more, the better'. Since my study does not aim at generalizations, there was no minimum requirement for sample size. After careful consideration, I decided that ~100 responses would be a number I could consider representative and meaningful in the light of my research objective. An ambitious target, which became more viable using an online survey.

Later, for the semi-structured elite interviews, I continued to use non-probability sampling. Non-probability sampling involves selecting cases that do not necessarily represent groups outside the research. Yet, they are chosen because the researcher knows that they have information that will contribute directly to answering the research question (Plowright, 2011, p. 53). For my semi-structured interviews, I used a combination of convenience sampling and purpose sampling. Convenience sampling means that I, as a researcher, used my existing contact network to gain access to industry leaders (high representatives of large employer associations) in order to convince them to grant me an interview. Purpose sampling means I targeted a specific respondent profile (influential role in society) for a specific purpose (to be exposed to the dominant discourse at the very top of the entrepreneurial ecosystem).

I chose the respondents from my professional contact network using convenience and purpose sampling. I classified the respondents in order of preference, starting by those I considered the most influential, experienced and active in public debate. I also ensured diversity in terms of sex, age and type of industry/economic activity. Finally, I excluded any respondents that worked in the education sector or developing/selling virtual education platforms, in order not to skew the results of the study.

### 3.3.2 Online survey

The first part of my data collection process took the form of an online survey. I chose this method for data collection for the reduced costs and efficiency it represented in relation to paper-based surveys, which require paper, printing facilities, time spent in data entry and in processing data, interviewers etc. With a web-based survey, data capture and processing can happen in real-time, increasing the efficiency of the research process (Cohen et al., 2018, p. 361-362).

The fact that I chose an online survey as my main data collection method also had a lot to do with access. Since I needed to target a very specific type of population (CEOs, Directors and top executives), who are usually very short of time and reluctant to answer questionnaires, I needed to offer them an easy, quick, flexible and non-traceable way to answer my questions at a time best suited for them. An online questionnaire is also less likely to be misplaced or ignored, since one can send reminders about it electronically. Moreover, human error is reduced, since the software can alert the interviewee if there are answers missing or if something was not filled out properly. Finally, data can be easily exported into software like SPSS for processing and subsequent analysis.

The respondents to an online survey might also be more honest if their responses are anonymous and not face-to-face (Cohen et al., 2018, p. 362). This was a very relevant point in relation to my particular case, where I felt CEOs or Country Directors of large companies might have personal prejudice against e-learning or e-qualifications, but feel like expressing these views could harm the company image. For example, a CEO that has had bad experiences with online learning, but whose company publicly embraces digital transformation and has sponsored internet access for rural schools as part of its corporate social responsibility program, might feel hesitant to make negative statements regarding e-learning – even to a researcher. According to Cohen et al. (2018, p. 362), this type of 'researcher effect' may be significantly reduced in online surveys.

It is important to acknowledge, however, that online surveys are also considered to have several potential or actual disadvantages in comparison to a conventional

survey. The electronic survey request might be rejected as spam; respondents might lack technical expertise or face technical problems to complete the survey; the respond rates can be low if the survey is too long; verifying the identity of the respondent is more complicated; the survey might be completed several times by the same person in order to obtain a reward or a prize; and the quality of the responses, especially in a long survey, might be low as respondents might start to tick any box just to reach the end (Cohen et al., 2018, p. 362-363). In the particular context of my research, I consider all of these risks to be quite low. Top executives are likely to be computer literate; I sent the survey request to the respondents through LinkedIn and WhatsApp, thus minimizing Spam filters; the survey platform I used only allows one submission per device; there were no rewards or other concrete incentives to complete the survey untruthfully; and, most importantly, the survey was kept extremely short and simple. This was the biggest trade off I made in my research design in order to guarantee a high response rate and high quality answers.

The online questionnaire was comprised of ten closed, multiple choice/response questions (see Appendix 1). The average response time for the whole questionnaire was 2 minutes and the questionnaire was filled out on the SurveyMonkey platform, which guaranteed the anonymity and non-traceability of the respondents. After considering different strategies to get top executives of important national and international organizations to participate in my study, I opted for a very short online questionnaire that would be sent out to them using instant messaging features of social media platforms. This strategy resulted effective, engaging an important number of private and public sector leaders to fill in the questionnaire.

In terms of the design of the questionnaire, I used a simple template offered by SurveyMonkey. Following recommendations by Dillman et al. (2014), I avoided forced responses and offered, instead, categories like “I do not recall”, “Not applicable” and “Other”, to keep respondents from abandoning the survey. I also avoided the use of drop-down boxes which can be easily unnoticed by respondents. Moreover, following recommendations by Redline et al. (2003), I kept the response categories below seven to avoid the ‘primacy effect’ and the ‘satisficing principle’ – that is, a respondent being naturally inclined to choose one of the first options in a list, especially if it is a long list, when the first reasonable option is

most often chosen. According to Redline et al., this is especially true when respondents are asked for opinions and beliefs rather than facts (level of studies, for example). Hence, I paid particular attention to the 'primacy affect' and the 'satisficing principle' while formulating the question regarding attitudes towards job applicants with e-qualifications. As a result, I kept the response categories below seven and located the two most extreme response options (the most negative attitude towards e-qualifications and the most positive attitude towards e-qualifications) as the first two options, followed by some moderate options and, finally, the option "I do not identify with any of these attitudes".

Initially, 91 people responded to the online survey. Four cases had to be excluded because they answered the question Q4: "*The size of the organization I currently work in*…" with the option "*I am not currently working nor have I worked for the last 24 months in a top management position*". I also excluded six cases that stated to represent a microenterprise (under 10 employees) since I considered them to have too limited of a 'gatekeeper role' (Cai, 2013) in relation to the general employment market. I had also added a filter affirmation to the question Q10 which read: *"I work developing or selling online education products"*. In case someone would have chosen this option, their answers would have been excluded from the data, in order not to skew the results of the study. These filters left me with 81 complete and valid surveys for quantitative analysis.

Two thirds of the respondents were male, despite active efforts to achieve a diverse sample. Roughly two thirds of the respondents owned or worked for large companies (over 200 employees), were over 45 years old, held a postgraduate degree and worked for the service sector. A more detailed demographic profile of the respondents (gender, age, level of education, company size and sector) is displayed in Table 3.2.

Even if such a limited questionnaire did not permit me to dig very deep into the perceptions of these 81 top executives that represent an influential elite in Peru, it did expose a few important trends that I explored further during five semi-structured interviews.

TABLE 3. 2 Demographic profile of survey respondents

| Criteria | Frequency | % |
|---|---|---|
| *Gender* | | |
| Female | 26 | 32,1 |
| Male | 55 | 67,9 |
| *Age* | | |
| Between 25 and 34 | 4 | 4,9 |
| Between 35 and 44 | 20 | 24,7 |
| Between 45 and 54 | 29 | 35,8 |
| Over 54 | 28 | 34,6 |
| *Education* | | |
| High School Diploma | 1 | 1,2 |
| University degree | 14 | 17,3 |
| Postgraduate certificate or diploma | 66 | 81,5 |
| *Company size* | | |
| Small | 10 | 12,3 |
| Medium | 15 | 18,5 |
| Large | 56 | 69,1 |
| *Sector* | | |
| Extractive sector | 11 | 13,6 |
| Industry and construction | 12 | 14,8 |
| Public services | 9 | 11,1 |
| Private services | 43 | 53,1 |
| Other | 6 | 7,4 |
| **Total** | **81** | **100** |

### 3.3.3 Semi-structured ‘elite interviews’

My view on research follows the social constructivist approach, which sees knowledge as something that cannot be ‘collected’ during an interview in the same way that a miner extracts minerals from the ground (Cohen et al., 2018, p. 506.). Instead, knowledge is viewed as something that is being constructed between participants during a social, interpersonal encounter, like an interview. As such, an interview is not considered exclusively subjective or objective, but inter-subjective (Ibid.).

An interview is considered a useful and flexible tool for data collection, allowing room for spontaneity, even if the order of the questions is pre-determined. Hochschild (2009) notes that interviews can complement surveys in the sense that they can explore issues in depth, to see how and why people frame their ideas in a certain way, how and why they make connections between ideas, values, events, opinions and behaviours etc. In other words, interviews can be used to shed more explanatory light on survey data, or to set up a survey. In my case, I used five semi-structured face-to-face interviews with influential business leaders to complement my surveys. Hochschild (2009) considers this type of 'elite interviews' a good strategy for making more sense of general survey data.

After analysing the survey data using SPSS, I designed an *interview guide* for the semi-structured interviews. According to a checklist published by Harvard University ("Strategies for Qualitative Interviews", n.d.), such a guide should be very simple, reminding the researcher of necessary topics to cover, questions to ask and areas to probe. It should not shift focus from the respondent, nor should it resemble a survey. In my case, the interview guide was drafted considering a total interview time of 30 minutes (see Appendix 2). Since only 3.7% of survey respondents had affirmed that "*none of these options reflect my attitudes [towards job-candidates with educational credentials obtained through ODL]*", I felt comfortable using the same themes and topics presented in the online survey as a basis for my interview guide.

One of my main concerns related to the semi-structured interviews had to do with the 'interviewer effect', referring to the influence that my mere presence could have on their responses. Consequently, the first five minutes were reserved exclusively for reassuring the respondents of anonymity and confidentiality, since I suspected them to be very self-conscious otherwise. The following 20 minutes were reserved for the interview itself and the last five minutes for describing the purpose of the study in more detail. Leaving this explanatory part until the end was a deliberate choice, aiming at avoiding respondents adjusting their answers based on their interpretation of what I wanted to hear.

## 3.4 Data analysis

The data collected for my study included both quantitative data (‘how many, how much, how often’) and qualitative data (‘what type’). The data was collected mainly through an online survey, which was complemented by five semi-structured ‘elite interviews’. The data collected was analysed using *descriptive statistics* and the qualitative method of *analytic induction*.

### 3.4.1 Descriptive statistics

My overall data analysis process began with the statistical analysis of my online survey data using the SPSS software. Even though quantitative data analysis is often associated with large-scale research, it can also serve smaller-scale investigations, which include case studies, action research, experiments and correlational research (Cohen et al., 2018, p. 725).

The method I used is called *descriptive statistics*, which is the term given to the analysis of data that helps describe, show or summarize data in a meaningful way so that, for example, patterns might emerge from the data. In other words, descriptive statistics simply report what has been found, without attempting to infer or predict population parameters (Cohen et al,. 2018, p. 727). As explained in section 3.3.1, such an attempt would not have been feasible considering the limitations of my sampling.

Trying to establish relationships between variables is the goal of much educational research (Cohen et al., 2018, p. 765). In the context of my research, I was interested in determining if factors such as the respondents’ age or their previous experience with virtual education platforms affected their attitudes towards job candidates with ODL certificates or diplomas. In statistical data analysis relationships can be established by using correlational techniques, which aim to answer three questions about two variables or two sets of data:

1) Is there a relationship between the two?
2) What is the direction of the relationship?

3) What is the magnitude of the association?

Relationship in this context refers to any tendency for the two variables to vary consistently (Cohen et al., 2018, p. 767). Since missing data can damage the precision or correctness of analysis, I paid special attention to the length and simplicity of my questionnaire, aiming to avoid respondents skipping questions.

### 3.4.2 Analytic induction

Qualitative data analysis is concerned with moving from the data to understanding, explaining and interpreting the phenomena in question. This includes organizing, describing, and making sense of data (Cohen et al., 2018, p. 643). This type of data analysis is not straightforward, however. There is no single or correct way to analyze and present qualitative data and one should always take into account *fitness for purpose* (Plowright, 2011). Analysis often merges with interpretation and data collection and data analysis may take place simultaneously, in a back-and-forth process (Cohen et al. 2018, p. 643).

The first step in any qualitative data analysis is data reduction. This does not refer to disregarding data, simply distilling the key points of the phenomenon in question (Gläser and Laudel, 2013). Data reduction is followed by data analysis and interpretation, conclusion drawing and verification. During data analysis, special care needs to be taken to avoid privileging one interpretation (e.g. the researcher's) over another, if both are sustained by the data (Cohen et al., 2018, p. 644).

After transcribing and translating the five semi-structured 'elite interviews' from Spanish to English, I immersed in a process of qualitative data reduction and analysis called *analytic induction*. According to LeCompte and Preissle (1993, p. 254), this process includes the scanning of data to generate categories or phenomena; the seeking of relationships between these categories; the writing of working typologies and summaries on the basis of the data examined; the refining of these by subsequent cases and analysis; and, finally, the deliberate seeking

of negative and discrepant cases to modify, enlarge or restrict the original explanation or theory.

In my case, it meant organizing and categorizing my qualitative data into key concepts and key points, identifying linkages and relationships between the data, being alert to contradicting data, and, finally, summarizing the data using tabulation (see Tables 4.2 & 4.7 in Chapter 4).

According to Cohen et al. (2018, p. 647), in abiding by the principle of 'fitness of purpose', the researcher must be clear on what she/he wants the data analysis to do. In the context of this study, the objectives of the qualitative data analysis were to identify, to describe, to explore, to discover patterns, to explain and to raise issues. In other words, the analytic induction aimed at adding depth to the statistical analysis, with elements of the narrative offering context to the studied phenomenon. In addition, contrasting the narrative data with the statistical data aimed at helping me identify any important themes or topics that might have been left out of the online questionnaire (described as 'residual data' by Cohen et al., 2018, p. 662).

## 3.5 Limitations

The first clear limitation of my study has to do with my sample, especially its size. A limited sample of 81 cases makes it impossible for me to perform inferential statistics, which would allow me to reach conclusions about a general population, based on probability. According to Cohen et al. (2018, p. 727), while simple frequencies and descriptive statistics may sometimes speak for themselves, and the careful portrayal of descriptive data may be important, inferential statistics are often more powerful and valuable for researchers. The fact that I am relying on non-probability, volunteer sampling instead of random sampling may also reduce the generalizability of my findings (Ibid). You might also be asking yourself why my sampling has targeted CEOs and other top executives, when large companies usually outsource their recruitment processes. The answer is that top executives still make the last call and choose between two or three top candidates. If the

company culture, which is very much dependent on top managements perceptions and beliefs, does not have appreciation for e-qualifications, the head hunter/recruitment agency will likely pick up on that during the briefing and use it as a filter.

Another clear limitation of this study has to do with the limited explanatory power of descriptive statistics. While one of my focuses has been to look for correlations, I am aware of the fact that correlation does not imply *cause*. Just because two variables move in tandem does not mean that one variable is affecting the other. A clear example of this is a person with large hands and feet. There is a positive correlation between big hands and feet, but this does not imply that big hands cause big feet. This was important to keep in mind while I tested my hypothesis H5 *("There exists a linkage between employers personal experience with e-learning and their level of bias against job candidates who have obtained their educational credentials through ODL")*.

In conclusion, there are many notable limitations to descriptive statistics, such as: the direction of causality is not often clear; causality may be bi-directional or multi-directional; assumptions of association might not be assumptions of causality; there may be a range of other factors that might have bearing on a dependent variable; there may be causes (independent variables) behind the identified causes (independent variables) that have a bearing on the dependent variable; the independent variable may cause something else, and it is the something else that causes the outcome (dependent variable); causality may be non-linear rather than linear; the direction of the relationship might be negative rather than positive; the strength/magnitude of the relationship might me unclear. Hence, the researcher has to make a fundamental decision about whether, in fact, the relationships are linear or non-linear, and select the appropriate statistical tests with these considerations in mind (Cohen et al., 2018, p. 728-9).

The explanatory limitations of descriptive statistics underline the importance of the qualitative part of my data analysis. Since I will not try to reach conclusions about what *all* Peruvian top executives think but, instead, on what s*ome* of them think and *why*, semi-structured interviews and their thematic analysis will play a crucial part in connecting ideas and understanding cause and effect.

Nonetheless, qualitative data presents several challenges, too. First, data are so rich that analysis involves selecting and ordering on the part of the researcher. This might involve some personal bias to which the researcher needs to be alert (Cohen et al., 2018, p. 649). Moreover, my subjective features as a researcher might include: data overload (humans may be unable to handle large amounts of data); giving too much importance to my first impressions (early data analysis tends to affect later data collection and analysis); availability of people (e.g. how representative these are and how to know if missing people and data might be important); information availability (easily accessible information may receive greater attention than hard-to-obtain data); positive instances (researchers may over-emphasize confirming data and under-emphasize disconfirming data); internal consistency (the unexpected, unusual or novel may be under-treated); uneven reliability (the researcher might overlook the fact that some sources are more reliable/unreliable than others); missing data (the issue for which there are incomplete data may be overlooked or neglected); revision of hypotheses (researchers may over-react or under-react to new data); confidence in judgement (researchers might have greater confidence than is tenable in their final judgments); co-ocurrance may be mistaken for association; inconsistency (subsequent analyses of the same data may yield different results). Hence, great caution and self-awareness must be exercised by the researcher in conducting qualitative data analysis, as the analysis of the findings may say more about the researcher than about the data. (Ibid, p. 665-6.)

Finally, as I embark on the data analysis process, I need to be fully aware of the fact that I bring to the data my own preconceptions, interests, biases, preferences, biography, background and agenda. Fact and interpretation are inseparable here, which makes reflexivity a crucial part of data analysis.

# 4 RESEARCH FINDINGS

Data analysis can be driven by people/respondents or by issues (Cohen et al., 2018, p. 662). In the context of this study, all of the data has been organized, analysed and presented by research question/hypothesis. In this approach, all the relevant data from various data streams (i.e. semi-structured interviews and online questionnaire) are collected to provide a collective answer to the research questions.

The research findings will be presented in two parts. First, those related to employers personal experience with e-learning. Second, those related to employer perceptions on ODL. The latter analysis will include testing the five hypotheses presented in Section 3.2. Numerical data will be presented first, followed by the qualitative data. This will enable patterns, relationships, comparisons and qualifications across data types to be explored conveniently and clearly. The qualitative data will be presented using both narrative (verbatim quotations) and summary tables. Both forms of data display will be accompanied with reflexive and interpretative commentary.

## 4.1 Employers personal experience with e-learning

The analysis of employers personal experience with e-learning begun with the statistical analysis of the online survey results. As mentioned before, my survey sample consisted of 81 people in top management positions in reputable companies. Hence, it was predictable that a clear majority of respondents would be over 45 years old (70.4%) and hold a postgraduate certificate or diploma (81.5%). If we consider that e-learning (especially in the form of MOOCs) has gained popularity less than a decade ago (with Coursera launching its operations in 2012), it is also no big surprise that the majority of respondents had had limited experience with e-learning (61.73 % had tried less than 5 courses or programs in their lifetime). The respondents that had experienced e-learning at least once (76.53%) had focused mainly on short-term courses and training offered by their own com-

panies, foreign universities and MOOC platforms (see Figures 4.1 & 4.2). I believe that the fact that so many executives had been offered online training by their own companies is related to the sampling, which was mainly focused on large companies (69.14% of respondents).

Almost one-fourth (23.46%) of the respondents affirmed that they had never participated in any course, subject or study program online. Since the number is relatively high, I was interested in analysing the demographic profile of this sub group more closely (see Table 4.1).

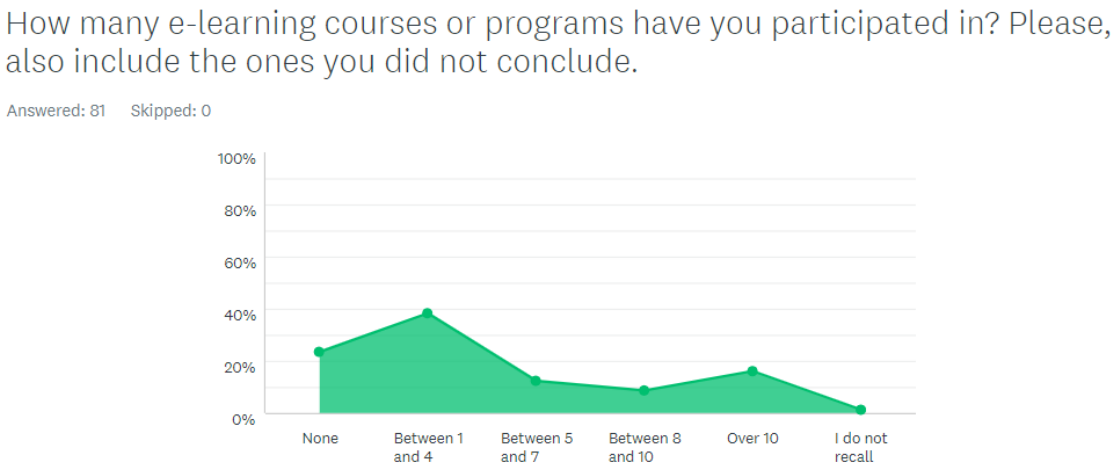
TABLE 4. 1 Demographic profile of survey respondents with no e-learning experience

| Criteria | Frequency | % |
|---|---|---|
| *Gender* | | |
| Female | 4 | 21,1 |
| Male | 15 | 78,9 |
| *Age* | | |
| Between 25 and 34 | 0 | 0,0 |
| Between 35 and 44 | 3 | 15,8 |
| Between 45 and 54 | 8 | 42,1 |
| Over 54 | 8 | 42,1 |
| *Education* | | |
| High School Diploma | 1 | 5,3 |
| University degree | 4 | 21,1 |
| Postgraduate degree | 14 | 73,7 |
| *Company size* | | |
| Small | 3 | 15,8 |
| Medium | 5 | 26,3 |
| Large | 11 | 57,9 |
| *Sector* | | |
| Extractive sector | 3 | 15,8 |
| Industry and construction | 6 | 31,6 |
| Public services | 1 | 5,3 |
| Private services | 9 | 47,4 |
| Other | 0 | 0,0 |
| **Total** | **19** | **100** |

I found that three-quarters of these respondents were male and held a postgraduate certificate/diploma. Nearly three-fifths worked in large companies (over 200 employees) and were under 55 years old, and nearly half worked in private sector

services. This surprised me, since I anticipated a clear majority to be working in small or medium-sized companies (with more limited access to corporate training), to be over 54 years old and to work in other areas than private services (which is considered the natural spearhead for digital transformation).

Out of those survey respondents that *did* have previous e-learning experience, almost half (48%) had participated in less than five courses or programs. Details of all survey respondents quantitative e-learning experience is displayed below (Figure 4.1).



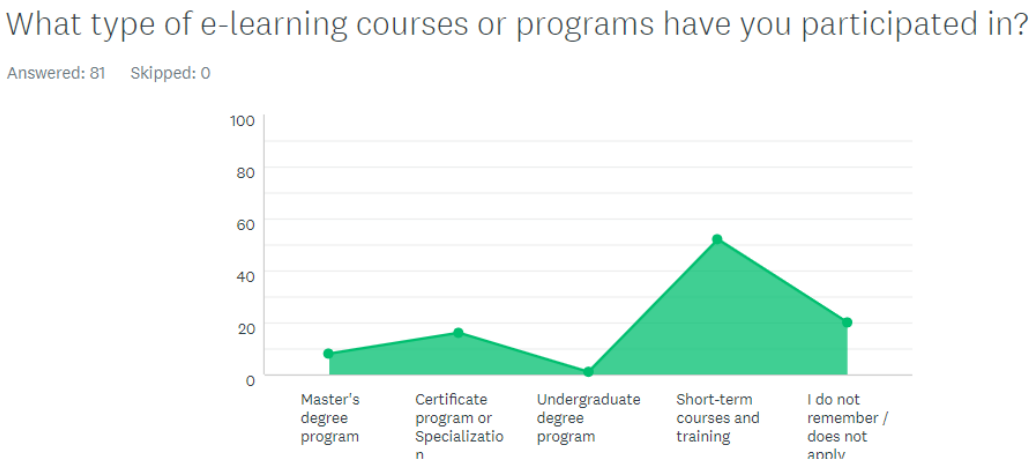

| ANSWER CHOICES | RESPONSES | |
|---|---|---|
| None | 23.46% | 19 |
| Between 1 and 4 | 38.27% | 31 |
| Between 5 and 7 | 12.35% | 10 |
| Between 8 and 10 | 8.64% | 7 |
| Over 10 | 16.05% | 13 |
| I do not recall | 1.23% | 1 |
| TOTAL | | 81 |

FIGURE 4. 1 Amount of e-learning survey respondents had engaged with

In addition to the *amount* of experience I also wanted to know about the *type* of experience respondents had had with e-learning. Over half of the respondents had experienced short-term courses or training online. One-fifth of the respondents chose the category *"I do not remember/does not apply"*, which matches with the number of respondents that had previously manifested not to have experience with e-learning. The fact that I did not program the survey in a way that would automatically hide this question from those respondents that had manifested not to have previous virtual learning experience can be considered an error in my

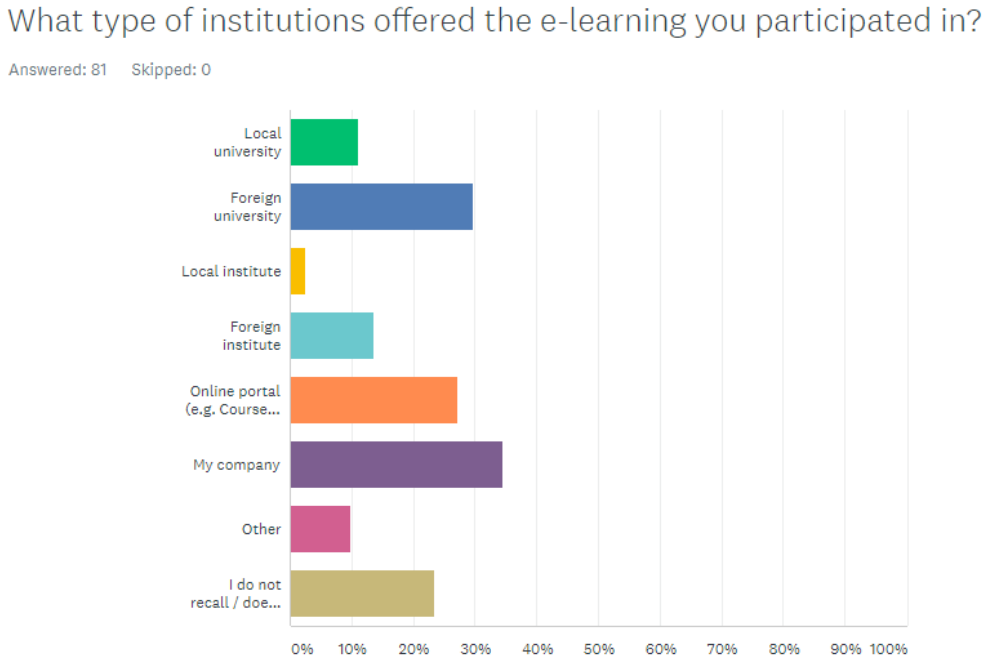
survey design. On the other hand, it can also be viewed in positive terms as a way to triangulate the answers given to question Q5 *("Have you ever studied a program/course/subject online?"*).

In addition to asking the respondents about the type of online courses and programs they had tried out (Figure 4.1), I also asked them about the *type of institutions* that had offered them online education (Figure 4.2). Again, the amount of respondents that chose the option *"I do not recall/does not apply"* matches with the amount of respondents that had previously manifested not to have experience with e-learning (question Q5). Hence, this affirmation was triangulated once more. Half of the respondents had been offered online education through their company's portal or through a MOOC (the examples given were Coursera, Crehana, NextU and OpenEnglish, following the ISIL survey format). One-quarter had received online education from a foreign university, while only one in ten had received it from a local university.




| ANSWER CHOICES | RESPONSES | |
|---|---|---|
| Master's degree program | 9.88% | 8 |
| Certificate program or Specialization | 19.75% | 16 |
| Undergraduate degree program | 1.23% | 1 |
| Short-term courses and training | 64.20% | 52 |
| I do not remember / does not apply | 24.69% | 20 |
| Total Respondents: 81 | | |

FIGURE 4. 2 Type of e-learning survey respondents had engaged with




| ANSWER CHOICES | RESPONSES | |
|---|---|---|
| Local university | 11.11% | 9 |
| Foreign university | 29.63% | 24 |
| Local institute | 2.47% | 2 |
| Foreign institute | 13.58% | 11 |
| Online portal (e.g. Coursera, Crehana, NextU, Open English) | 27.16% | 22 |
| My company | 34.57% | 28 |
| Other | 9.88% | 8 |
| I do not recall / does not apply | 23.46% | 19 |

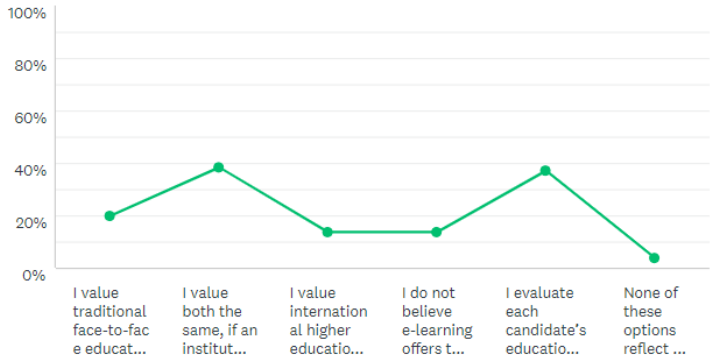
FIGURE 4. 3 Institutions that had offered e-learning to survey respondents

## 4.2 Employers perceptions on e-learning

After mapping and analysing employers previous experience with e-learning, it was time to focus on the main topic of interest for this study: *employer perceptions*. Data regarding employer perceptions had been collected both through the semi-structured interviews and through the online questionnaire (specifically, through multiple-choice question Q9). The research findings of the ISIL survey (2018) guided me in choosing the affirmations presented in Figure 4.4., which aimed at capturing the most common types of attitudes towards e-learning.

When evaluating the professional profiles of job candidates...

Answered: 81 Skipped: 0




| ANSWER CHOICES | RESPONSES | |
|---|---|---|
| I value traditional face-to-face education over e-learning. | 19.75% | 16 |
| I value both the same, if an institution I consider prestigious has accredited the e-learning. | 38.27% | 31 |
| I value international higher education in a special way, no matter if it has been offered online or face-to-face. | 13.58% | 11 |
| I do not believe e-learning offers the same level of professional networking. | 13.58% | 11 |
| I evaluate each candidate's educational credentials case by case, without predetermined preferences regarding the study format (online or on campus). | 37.04% | 30 |
| None of these options reflect my attitudes. | 3.70% | 3 |
| Total Respondents: 81 | | |

FIGURE 4. 4 Survey respondents perceptions of job-seekers with e-learning credentials

As the table shows, none of the affirmations was confirmed by more than 38% of survey respondents. This indicates that there are several views or attitudes influencing employers decision-making in relation to job-seekers with e-learning credentials. The fact that only 3.7% of respondents considered that *"None of these options reflect my attitudes"*, reassured me to some extent that no important themes or topics had been left out the questionnaire. Still, I needed to complement my survey results with thicker qualitative data in order to answer the following questions:

1) Is a negative bias against ODL the general trend among Peruvian employers?
2) If so, does it affect job-seekers with e-learning credentials?
3) If so, are there any 'mitigating factors' that reduce this negative bias, balancing out the final recruitment decision?

This thicker data was provided by the five semi-structured interviews I had carried out with highly influential industry leaders (see Section 3.3 for 'Data acquisition'). A summary of the interviewee profiles is presented below (Table 4.2).

TABLE 4. 2 Profiles of interviewed industry leaders

| SUMMARY OF ELITE INTERVIEWEE PROFILES | |
|---|---|
| **Interviewee #1** | Represents manufacturing and construction; some bias against ODL; very convinced that 'times are changing' |
| **Interviewee #2** | Represents private services; some bias against ODL; sees an opportunity for change in the improvement of interactive technologies |
| **Interviewee #3** | Represents private services; some bias which is mitigated by the prestige of the accrediting institution; sees a nation-wide problem in the lack of facilitating conditions |
| **Interviewee #4** | Represents private services; some bias, depending on the field of study; sees ODL as an opportunity to experience world-class universities and grow your international networks; sees ODL as necessary for a digital transformation |
| **Interviewee #5** | Represents extractive industries; some bias against ODL; sees testimonials from friends and acquaintances as pivotal in molding attitudes among employers; recognizes that a paradigm shift is taking place |

Compared to the very short online survey, the direct conversations I had with industry leaders proved to be immensely rich in data and detail. By using the process of analytic induction, I was able to organize and categorize the thicker qualitative data obtained through these 'elite interviews' into the key points presented in Table 4.3.

All interviewees admitted the existence of a negative bias in relation to ODL among business leaders and employers in Peru. Similarly, all five admitted that being faced with a recruitment decision they would have some level of negative bias against a job-seeker with e-learning credentials. For some of them, admitting this fact aloud was clearly challenging and uncomfortable, presumably because of their public image and a fear of sounding 'outdated'. An example is drawn from the first interview:

> I can sit here and insist that I would make no distinction [between a job candidate who has studied online and a job candidate who has studied in the traditional way], but being faced with that situation [recruitment] the reality would probably be different [awkward laughter]. (Interviewee #1)

I interpreted the situation as them trying to express that their responses were somehow conditioned by my presence. At that point, I decided to reaffirm that there were no right or wrong answers, that the responses would not be identifiable, and that all type of responses would benefit the research.

The problem of *biased data* is analysed in depth by Robbins (2009, pp. 66-67), who affirms that the presence of an interviewer can cause respondents to change their answers because of social desirability. In other words, interviewers can affect respondents answers through their mere presence. In addition to social desirability or social norms, biased data is also created when the interviewer helps clarify a question by offering an illustration to one participant but not the others (Robbins, 2009, p. 67). This also happened to me in the first interview, when Interviewee #1 asked me to illustrate what is considered e-learning and what is not. In an effort to avoid biased data, I made sure to use the same exact example (watching a YouTube tutorial versus using an educational platform online) in every single interview thereafter.

Other recurring themes in the semi-structured interviews included the existence of what I would categorize as ‘mitigating factors’ (considerations that clearly attenuate or supersede the existing negative bias). These mitigating factors included understanding the job-seekers background and motivations better; credibility and prestige of the accrediting institution; as well as positive testimonials from friends and acquaintances regarding an ODL course or program. Finally, interviewees made a significant amount of references to a ‘paradigm shift’ and to a ‘change in traditional ways of thinking’. All interviewees saw, however, that this change needed to be supported with different parallel actions, including better marketing of ODL offering; taking advantage of new interactive technologies to improve user experience; improve connectivity; and work on teachers IT skills.

The degree of unanimity gives considerable power to the results of the elite interviews, even though, because of the sampling used, they cannot be said to be representative of the wider population. However, the sample of experienced industry leaders was deliberately selected to provide an informed overview of key issues affecting attitudes towards e-learning and job candidates with ODL credentials. It is important to remember, that even though unanimity is useful, the

main purpose of the interview data was to identify key issues, regardless of unanimity, convergence or frequency of mention. The respondents articulated similar issues, however, and this signals that these might be important elements.

TABLE 4. 3 Key points and recurring themes in semi-structured interviews

RECURRING THEMES IN THE ELITE INTERVIEWS

| *Theme* | *Verbatim examples* |
|---|---|
| Bias against ODL exists | "There is some bias, which might vary between sectors. It could also be something generational, more common in people my age. (Interviewee #5)<br><br>"There is bias against virtual learning because it's traditionally seen as something that doesn't work well in Peru. Connectivity is bad, there are many distractions at home, and people are used to interacting with the teacher. […] I think there needs to be a proper cycle of feedback for learning to occur." (Interviewee #2) |
| ODL represents a disadvantage in a recruitment situation | "I would probably give a job candidate who has studied online a score of 8/10 while someone who has studied face-to-face would get a 10/10. That's the level of my bias. But it used to be much more! Back in the day, I would have probably scored them a 4/10. Times are changing." (Interviewee #2)<br><br>"I can sit here and insist that I would make no distinction, but being faced with that situation, the reality would probably be different." (Interviewee #1) |
| 'Mitigating factors' exist | "I think I could consider hiring someone who has studied online, but I would need to understand their circumstances better. Maybe there is a really good reason for it, which shows me that they have overcome many obstacles, and I end up really impressed. But I need to know *why*. " (Interviewee #1)<br><br>"I need to trust the institution offering the virtual education. The platform needs to be optimal for learning and there need to be excellent teachers involved. A prestigious institution offers that guarantee." (Interviewee #3)<br><br>"It's really important to hear testimonies from friends and acquaintances who have had an excellent experience with e-learning. It affects the way you view the whole thing." (Interviewee #5)<br><br>"I don't think that the level of your personal contact network suffers at all [because of ODL]. On the contrary, your network is probably much more international. I would see it as an advantage, really." (Interviewee #4) |
| A paradigm shift is taking place but parallel action is still needed | "I think that there could be more interest if the education providers would just market themselves better. The more people try it out, the more positive comments you will hear. That's how the paradigm will continue to shift." (Interviewee #5)<br><br>"The interactive technology has advanced so much lately. The conditions exist to make [ODL] work well, with synchronic and asynchronic elements. Not like before, when it was just a list of articles to read and a chat room. People are becoming more open and more interested in this. " (Interviewee #2)<br><br>"The traffic in Lima is becoming unbearable. [ODL] would save people so much time and help create a balance between work, studies and having family. I think we're ready for that change [as a society] but we need to work on connectivity and teachers' IT skills." (Interviewee #4) |

### 4.2.1 Did employers display a dismissive attitude?

The main objectives of the data analysis carried out for this study were to i) test the five hypothesis presented in Section 3.2, and ii) explore if any relevant themes or topics had been left out of the online questionnaire. In the following sub sections, we will test each of the five hypothesis, one per sub section, before drawing conclusions regarding the main research question and the four sub questions presented in Section 1.2.

The first hypothesis (*H1 = Employers display a dismissive attitude towards job-seekers with educational credentials obtained through ODL*) was tested using both descriptive statistics and analytic induction by the researcher. The results of the statistical analysis reveal that although some level of negative bias might have existed in all survey respondents, only 19.75% displayed a clearly dismissive attitude towards job-seekers with educational credentials obtained through ODL. In this study, a 'dismissive attitude' is associated with the following affirmation: *"When evaluating the professional profiles of job-seekers, I value traditional face-to-face learning over e-learning*" (see Q9 in Appendix 1).

Out of the respondents who displayed a dismissive attitude, 87.5% were male and held a postgraduate degree; 75 % worked in large companies; 50 % worked in private sector services; and 43.8% were over 54 years old (no-one under 35 years old agreed with the affirmation). In terms of age, the mean value was 4.2 which refers to category 4/5 (people between 45 and 54 years old) and the skewness was -0.39, which means that the curve of distribution was not normal (it had a tail to the left). When performing a cross-tabulation I also found a positive linear tendency, which is noticeable in Figure 4.5.

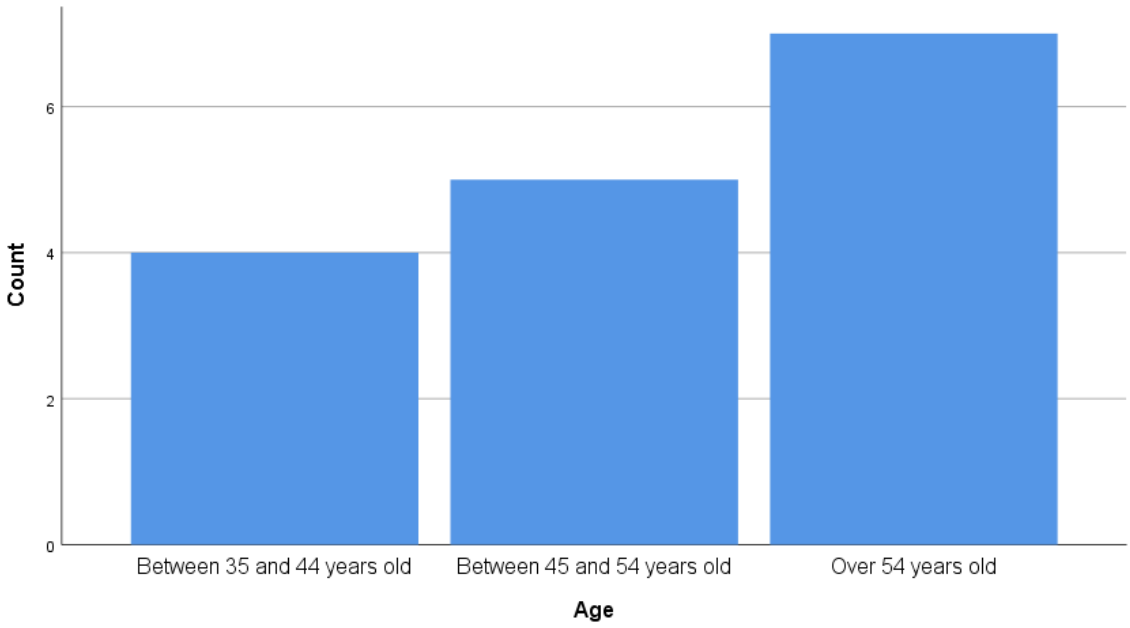



FIGURE 4. 5 Respondents that valued traditional face-to-face learning over e-learning when evaluating job candidates

This finding encouraged me to test the positive linear correlation between age groups (a categorical *and* ordinal variable) and the affirmation "*When evaluating the professional profiles of job candidates, I value traditional face-to-face learning over e-learning*" – a categorical variable I had coded with values 0=No and 1=Yes. If both of the variables had been categorical, the best option for testing linear correlation would have been the Pearson Chi-square test (Einspruch, 2005, p. 62). However, since in this case one of the variables was also ordinal, the Spearman rank correlation was a more suitable choice (Cohen et al., 2018, p. 765). Also known as Spearman's rho, this bivariate correlation analysis tests the strength of association between two variables in a single value between -1 and +1. This value is known as the correlation coefficient. A positive value indicates a positive relationship between the two variables, while a negative value indicates a negative relationship. A correlation coefficient of zero indicates that no relationship exists between the two variables (Ibid., p. 766).

The Spearman rank correlation produced a correlation coefficient of 0.097 (see Table 4.4) which indicates a very weak positive correlation. Moreover, the probability associated with this correlation coefficient is 0.388, which is clearly above the conventional significance level of 0.05. The significance level refers to the probability of rejecting the null hypothesis when it is true. At the level of 0.05, this

risk is 5%, which is still considered acceptable in most types of research (Cohen et al., 2018, p. 767). However, a significance level of 0.388 suggests a 38.8% likelihood that the null hypothesis, which states that there is no statistically significant relationship between the two variables, is correct. This would indicate that the linear pattern displayed by our data is nothing but mere coincidence.

TABLE 4. 4 Testing the positive linear correlation between 'a dismissive attitude towards ODL' and 'age group' using Spearman's rho

| | | | Age Group | "I value traditional face-to-face education over virtual education" |
|---|---|---|---|---|
| Spearman's rho | Age Group | Correlation Coefficient | 1,000 | ,097 |
| | | Sig. (2-tailed) | . | ,388 |
| | | N | 81 | 81 |
| | "I value traditional face-to-face education over virtual education" | Correlation Coefficient | ,097 | 1,000 |
| | | Sig. (2-tailed) | ,388 | . |
| | | N | 81 | 81 |

Two conclusions can be drawn from this. First, that the hypothesis H1 presented in Section 3.2 *("Employers value traditional face-to-face learning more than online distance learning when evaluating job candidates")* has not been validated by this study, since only one-fifth (19.75%) of survey respondents affirmed to value face-to-face learning over e-learning when evaluating job candidates. Secondly, that a dismissive attitude towards job candidates with an online distance learning background cannot be explained by a single factor, such as the employer's age group. Consequently, the qualitative analysis presented in Section 4.3 will be pivotal for drawing conclusions about cause and effect in relation to employer perceptions.

### 4.2.2 Was prestige a mitigating factor?

The second hypothesis I had formulated before starting my data collection was the following: *H2=Employers negative bias against ODL is mitigated by the fact*

*that the accrediting institution is prestigious.* Based on my observations and conversations with Peruvian executives, I had noticed that the courses offered online by prestigious universities like Harvard and MIT were widely accepted to be of high quality independently of the course format. In other words, the prestige of the accrediting institution seemed to affect the level of scrutiny or scepticism the ODL program faced.

I wanted to test this hypothesis using my online survey. Question Q9 included the following affirmation: “When evaluating the professional profiles of job candidates, I value both [face-to-face education and e-learning] the same, if an institution I consider prestigious has accredited the e-learning” (see Figure 4.4). Over 38.2% of the survey respondents agreed with this statement, making it the most popular affirmation in the questionnaire. When looking at the demographics of this sub group of respondents, we can see that 75% were male, 81.3% held a postgraduate degree, 40.6% were over 54 years old, 68.8% worked for a large company and 62.5% worked in private services. Three times more women chose this affirmation compared to the first one (i.e. “I value traditional face-to-face education over e-learning”). It was also chosen by people from all age groups, compared to the first one, which no one under 35 years old agreed with.

The importance of prestige was also strongly underlined in the semi-structured interviews. As one interviewee put it:

> I need to trust the institution offering the virtual education. The platform needs to be optimal for learning and there need to be excellent teachers involved. A prestigious institution offers that guarantee. (Interviewee #3)

In conclusion, the prestige of the accrediting institution does seem to be one of the most important mitigating factors determining employer attitudes towards jobseekers with ODL credentials. However, it does not seem to be the only mitigating factor. If over 80% of respondents do not express a dismissive attitude towards e-learning, but only 38.2%, affirm to value them equally if the accrediting institution is prestigious, there must be other mitigating factors that are considered even more relevant.

### 4.2.3 Was internationalism a mitigating factor?

The third hypothesis I had formulated before starting my data collection was the following: *H3=Employers negative bias against ODL is mitigated by the fact that the accrediting institution is foreign* (see Section 3.2). This hypothesis was also based on observations and conversations with Peruvian executives. In this context, it is good to note that Peru's PISA scores rank among the lowest in Latin America (PISA, 2018) and only two Peruvian universities are included in the regional top-70 of universities (QS university rankings, 2020). Hence, the fact that one has studied in a foreign university is usually a source of pride for Peruvian professionals.

However, only 13.58% of the survey respondents agreed with the statement *"I value international higher education in a special way, no matter if it has been offered online or face-to-face"*. When looking at the demographics of this sub group of respondents, we can see that 54.5% of the respondents were male, 81.8% worked in a large company, 72.2% held a postgraduate degree, 63.6% were under 55 years old and 54.5% worked in private sector services.

The low number of survey respondents that agreed with this statement would indicate that the 'internationalism factor' is not really a critical one when analysing ODL acceptance among Peruvian top executives. This was also evident in the semi-structured interviews. Interviewees indicated that *prestigious* foreign universities added value to the ODL credentials. However, no one expressed that the internationalism factor in itself would be particularly appealing. This can be considered as a negative signal to any new, international education providers that would like to launch their services outside the traditional universities, specializing in ODL. While it is probable that Peruvian executives do value international experience significantly, they still seem to make a clear distinction between those international studies that have taken place online and those that have taken place on-site. While for face-to-face experiences abroad the prestige of the accrediting institution seems to be of secondary importance (versus broadening your horizons and gaining language-skills), the standard does not seem to be the same for international online studies.

### 4.2.4 Were professional networks a critical factor?

The fourth hypothesis I had formulated before starting my data collection was: *H4=Employers do not believe that ODL offers effective networking* (see Section 3.2). The personal and professional contact networks that a new employee can bring to the company are generally seen as an important asset in Peru. Consequently, I deduced that if Peruvian employers doubted the effectiveness of ODL in building those networks, it could be affecting their perceptions of job candidates negatively.

I wanted to test this hypothesis using my online survey. Question Q9 included the following affirmation: “When evaluating job candidates, I do not believe e-learning offers the same level of professional networking [than face-to-face education]”. However, only 13.58% of the survey respondents agreed with this statement. When looking at the demographics of this sub group of respondents, we can see that 63.6% were male, had a postgraduate degree, were between 45 and 54 years old, and worked for a large company. All sectors except public sector services were represented.

First I thought that this low number could be related to the general belief that the most relevant and long-lasting networking takes place during undergraduate studies which, in the Peruvian context, have an average duration of five years and are not offered in an online distance learning format. The semi-structured interviews did not underline this aspect, however. Instead, interviewees considered online networking as extremely efficient, a good example being the social media platform ‘LinkedIn’. As one interviewee put it:

> I belong to a regional-level association related to my sector. We have never met in person and yet we keep in touch actively, organise online talks and seminars, and follow each other on social media. (Interviewee #3)

In conclusion, while doubts regarding ODLs potential in offering personal and/or professional contact networks could be a critical issue to a small minority of employers, it does not seem to be a widely held view or concern among top executives.

### 4.2.5 Did personal experience correlate positively with open-minded attitudes?

The fifth hypothesis I presented in Section 3.2 suggested “a linkage between employers personal experience with e-learning and their level of bias against job candidates who have obtained their educational credentials through ODL”. In Figure 4.6, I have categorized and organized the five statements presented in questionnaire question Q9 (see Annex 1) in a way that illustrates different levels and types of negative bias against e-learning. The figure is an example of the data analysis and data display that can result from a process of analytic induction.

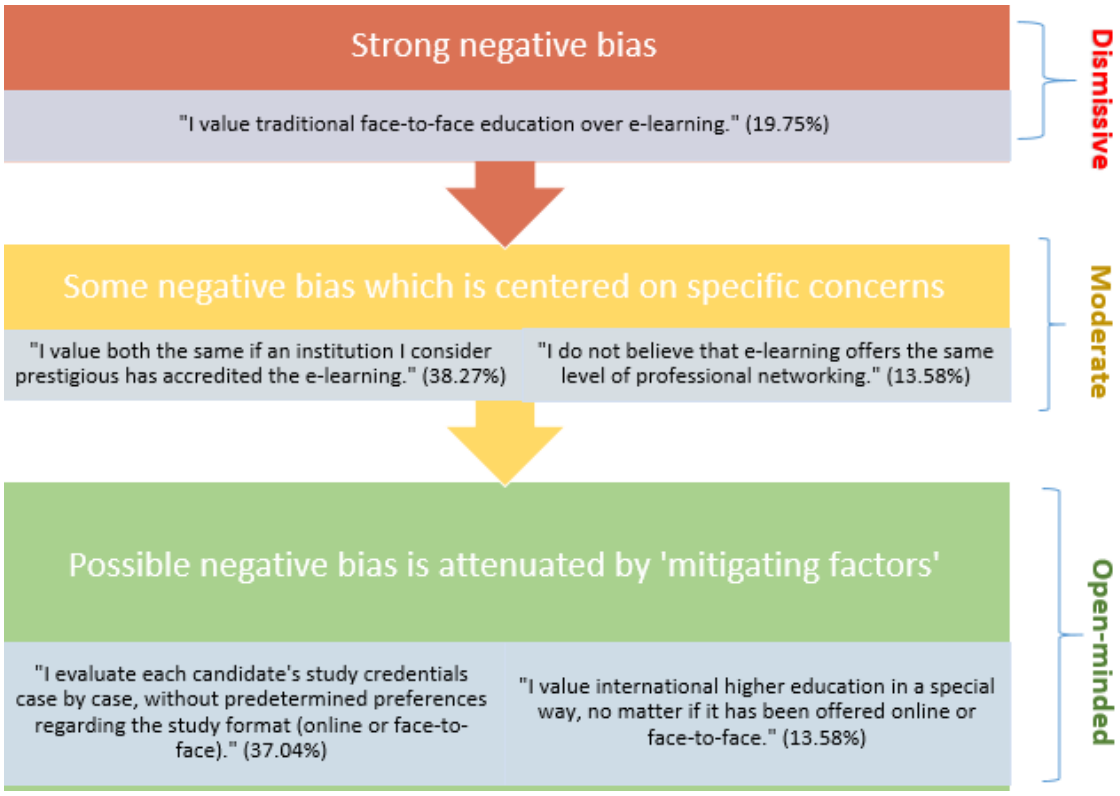



FIGURE 4. 6 Levels of negative bias against job candidates with e-learning credentials

A relatively low number of survey respondents (19.75%) chose the statement that reflects the most ‘dismissive’ attitude (significant negative bias towards job-seekers with educational credentials obtained through ODL). The two statements that received the most votes (38.27% and 37.04%, respectively) reflected a ‘moderate’ attitude (some negative bias towards job-seekers with educational credentials obtained through ODL) and an ‘open-minded’ attitude (any possible negative bias is attenuated by ‘mitigating factors’). The affirmations and the percentage of respondents who agreed with them are presented in Figure 4.6.

Next, I will use the descriptive method of cross tabulation to better understand the correlation between the independent variable ‘personal experience with e-learning’ (questionnaire question Q5) and the different dependent variables that reflect ODL attitudes (questionnaire question Q9). I start my cross tabulation by creating a new variable labelled ‘open-minded attitudes towards ODL’. This new variable is created by combining the data of two answer categories *(“I value international higher education in a special way…”* and *“I evaluate each candidate’s study credentials case by case…”*) and by selecting those cases than responded “Yes” to one or both affirmations. Finally, I cross tabulate the new variable with the responses to question Q5 (regarding personal experience with e-learning). The results are presented in Figure 4.7.

Out of 81 survey respondents, 39 agreed with one or both of the statements categorized under ‘open-minded attitudes’. Out of this group, 92.3% had experienced virtual learning at a personal level. This is a significantly higher number than the share of *all* survey respondents that had previous experience with virtual learning (76.54%), which suggests a positive correlation between the independent variable ‘personal experience’ and the dependent variable ‘open-minded attitudes’.

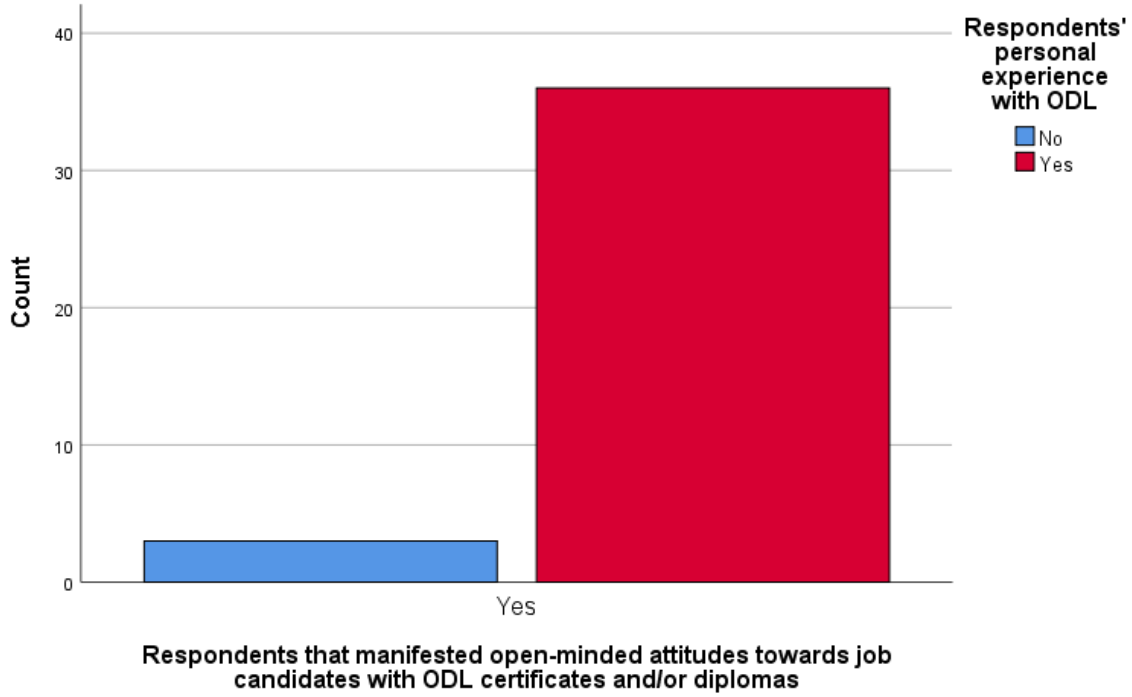



FIGURE 4. 7 The linkage between open-minded attitudes and the respondents personal experience with e-learning

One of the most common ways of looking at the association between two categorical variables is to use the chi-square statistic (Einspruch, 2005, p.65). The question we are interested in is “Do the employers that have the most open-minded attitudes towards job candidates with ODL credentials, have personal experience with e-learning?” To answer this question, we need to cross-tabulate the two variables and look at the percentage of respondents that did and did not have prior experience with virtual learning and who chose, according to our listing, the most open-minded affirmation regarding ODL (see Table 4.5). Finally, we will test the similarity of the two distributions using the chi-square statistic.

Looking at the crosstab table, we can identify a pattern where personal experience with e-learning seems to correlate positively with an open-minded attitude towards job candidates with ODL credentials. We confirm the positive correlation by using Pearson’s chi-square test, which is often used to test the correlation between two categorical variables (Einspruch, 2005, p. 65). In this case, the test gave us a Chi-square value of 7.481 with one degree of freedom (see Table 4.6). The probability associated with this chi-square value is 0.006, which is much less than the significance level of 0.05. Thus, we can conclude that it was not due to

chance alone that the percentages were distributed so differently between the two respondent groups. Instead, a strong positive correlation between the two variables exists in this particular sample.

TABLE 4. 5 Cross-tabulation that illustrates the relationship between making an open-minded affirmation and having personal experience with e-learning

| | | | "I evaluate each candidate's study credentials case by case, without predetermined preferences regarding virtual or face-to-face education." | | |
|---|---|---|---|---|---|
| | | | No | Yes | Total |
| Respondents' personal experience with ODL | No | Count | 17 | 2 | 19 |
| | | % within Respondents' personal experience with ODL | 89,5% | 10,5% | 100,0% |
| | Yes | Count | 34 | 28 | 62 |
| | | % within Respondents' personal experience with ODL | 54,8% | 45,2% | 100,0% |
| Total | | Count | 51 | 30 | 81 |
| | | % within Respondents' personal experience with ODL | 63,0% | 37,0% | 100,0% |

TABLE 4. 6 Testing the association between making an open-minded affirmation and having personal experience with e-learning using the Pearson Chi-square

**Chi-Square Tests**

| | Value | df | Asymptotic Significance (2-sided) | Exact Sig. (2-sided) | Exact Sig. (1-sided) |
|---|---|---|---|---|---|
| Pearson Chi-Square | 7,481[a] | 1 | ,006 | | |
| Continuity Correction[b] | 6,070 | 1 | ,014 | | |
| Likelihood Ratio | 8,627 | 1 | ,003 | | |
| Fisher's Exact Test | | | | ,007 | ,005 |
| Linear-by-Linear Association | 7,389 | 1 | ,007 | | |
| N of Valid Cases | 81 | | | | |

a. 0 cells (0,0%) have expected count less than 5. The minimum expected count is 7,04.

b. Computed only for a 2x2 table

It is important to note, however, that due to the limitations of our sample, this result cannot be generalized to the whole population (*all* Peruvian employers). Similarly, no causality has been shown. That is, we have not shown that the personal experience is the *cause* behind the open-minded attitudes. Simply, that these two variables have a specific type of association with one another: when one moves in one direction, so does the other. For the overall purpose of this study, it is important, however, to be able to draw some conclusions regarding cause and effect. For this end, we rely once more on the thicker narrative data provided by the semi-structured interviews, to which we turn next.

### 4.3 Determining cause and effect

As detailed above, I began my effort to answer the research questions using statistical analysis. While descriptive statistics allowed me to analyse patterns, trends and correlations in the survey data, they did not allow me to establish causality. That is, to prove that X came before Y, that the relationship between the two cannot occur by chance alone, and that there is no other explanation (alternate cause) for the relationship between X and Y than the fact that X causes Y (Antonakis et al., 2010).

Hence, in order to learn more about the factors that cause bias against ODL among Peruvian employers, I needed to focus on qualitative data analysis. Engaging in a process of analytic induction includes identifying linkages and relationships between the data, while always staying alert to any contradicting statements, which could put those linkages and relationships into question (Cohen et al, 2018). Some of the causal links that the correlation tests had suggested, found support in the elite interviews. In addition, new themes emerged from the interviews. A summary of the key factors causing negative bias towards ODL among the interviewees are presented in Table 4.7.

Causes for negative bias included: i) lack of personal experience with e-learning; ii) negative personal experiences with e-learning; iii) limited notions of virtual education; iv) a concern for the social aspects of learning, and v) distrust.

TABLE 4. 7 Causes for negative bias expressed in interviews

**CAUSES FOR NEGATIVE BIAS AGAINST E-LEARNING**

| *Cause* | *Verbatim examples* |
|---|---|
| Lack of personal experience | "I don't have any personal experience [with ODL] and I'm sure that that is what is making me biased." (Interviewee #1) |
| Negative personal experiences | "My experiences [with ODL] from 15 years ago were quite bad, so I'm still influenced by that. There was no real interaction with the teacher or with fellow students. I remember it being like reading a book. You were also supposed to comment in some sort of chat or forum, but it wasn't very motivating. You didn't know any of the people there." (Interviewee #2)<br><br>"It's traditionally been very difficult to make any expert forums, including education events, work online in Peru. Having high-quality connectivity is a big bottle-neck for taking things online here." (Interviewee #3) |
| Limited notions of virtual education | "In general, people my age have mostly experienced online English courses which were a big trend some years ago. Since they didn't really help anyone learn English, virtual learning has been discredited in the minds of many as a useless methodology." (Interviewee #5)<br><br>"I have been receiving a lot of targeted advertising from MIT lately and I have been positively surprised by the level of courses and programs offered online." (Interviewee #2) |
| Concern for the social aspects of learning | "In the Peruvian context, the quality of education is largely connected to the quality of the interactions. We like to debate with the teachers and bounce off ideas in class. It's in those spontaneous interventions that you see if a student has internalized anything." (Interviewee #4)<br><br>"For me going to university was much more than studying, I learned from the people there. Maybe even more than from the books." (Interviewee #5) |
| Distrust | "Cheating is probably a big concern for many. Thinking that someone can graduate from online studies without real merit. But I'm sure that that can be controlled better nowadays." (Interviewee #1) |

An overview of all research findings will be presented next, as part of the concluding chapter of this study.

# 5 CONCLUSIONS AND DISCUSSION

The purpose of this study was to collect primary data regarding Peruvian employers perceptions on e-learning and to respond the research question: "*Do Peruvian employers perceptions of e-learning include a negative bias against job candidates who have obtained their educational credentials through online distance learning?*"

In the next section, I will present a summary of the main research findings, followed by recommendations for further research and a discussion regarding the future of e-learning in Peru.

## 5.1 Summary of research findings

The main research findings related to the particular sample used (not to be generalised) were the following:

**Hypothesis 1** (*Employers display a dismissive attitude towards job-seekers with educational credentials obtained through ODL*) **was refuted**, since only 19.75% of survey respondents expressed an attitude that could be interpreted as 'dismissive'. Moreover, none of the interviewed industry leaders admitted (or unconsciously expressed) a dismissive attitude. On the contrary, all were convinced that a paradigm shift was taking place, positively affecting the current bias against ODL.

**Hypothesis 2** (*Employers negative bias against ODL is mitigated by the fact that the accrediting institution is prestigious*) **was supported**, since 38.27% of survey respondents identified with a statement that reflected this mitigating effect. Interviewees also energetically underlined the importance of prestige.

**Hypothesis 3** (*Employers negative bias against ODL is mitigated by the fact that the accrediting institution is foreign*) **was refuted**, since only 13.58% of survey respondents identified with a statement that reflected this mitigating effect. Interviewees did not separate the 'internationalism factor' from the 'prestige factor'.

That is, *both* were needed in order for there to be a mitigating effect. Foreign private companies offering English online were mentioned and discredited by several interviewees.

**Hypothesis 4** (*Employers do not believe that ODL offers effective networking*) **was refuted**, since only 13.58% of survey respondents identified with a statement that reflected this concern. Moreover, all the interviewees expressed great satisfaction with the opportunities offered by online networking and viewed it in exclusively positive terms.

**Hypothesis 5** (*There exists a linkage between employers personal experience with e-learning and their level of bias against job candidates who have obtained their educational credentials through ODL*) **was supported**, since a statistically significant positive correlation existed between a survey respondent having personal experience with e-learning and expressing an 'open-minded attitude' towards job candidates with e-learning credentials.

In relation to the main research question (*Do Peruvian employers perceptions of e-learning include a negative bias against job candidates who have obtained their educational credentials through online distance learning?),* the evidence suggests that **some level of negative bias against ODL is commonplace among Peruvian employers**. Considering the position and profile of the interviewees, it seems very unlikely that this negative bias would be exclusive to this particular sample.

In relation to the sub questions (*If so, can this bias be described as a dismissive attitude or as something more moderate? If so, are there demographic factors that reduce this negative bias? If so, are there any 'mitigating factors' that reduce this negative bias? If so, are the employers personal experiences with e-learning associated with this negative bias?*), the evidence suggests the following:

i) For a large majority of employers a negative bias **does not lead to a dismissive attitude**.

ii) As for this sample, the negative bias **could not be explained by demographic factors, such as age**.

iii) It was possible to identify **several 'mitigating factors' that reduced or balanced out the negative bias,** including the prestige of the accrediting institution; positive testimonials from friends or acquaintances; understanding the job candidates circumstances better; as well as making a positive assessment of the contact networks developed through online distance learning.

iv) Although there seems to be a positive correlation between having experienced e-learning and having an open-minded attitude towards ODL, the same has not been shown the other way around. That is, **dismissive attitudes towards ODL are expressed both by people who have and who have not had personal experience with e-learning**. A simple explanation could be that those employers that express open-minded attitudes are the ones who have had *positive* experiences with e-learning. Similarly, those who express dismissive attitudes either lack personal experience or have had *negative* personal experiences with e-learning. The online questionnaire failed to address this topic (user satisfaction with e-learning), which, in hindsight, would have been an important element to include. Fortunately, the semi-structured interviews helped to bridge this gap, complementing the survey data and confirming that a lack of personal experience as well as previous negative experiences caused negative bias, which, in turn, was attenuated by mitigating factors. Finally, the evidence suggests that the lack of personal experience can lead to very limited notions of what e-learning is or has the potential to be, and even cause distrust towards the e-learning format. Similarly, it can make respondents doubt the potential of e-learning in facilitating social learning and learning from peers.

According to Hochschild (2009), elite interviews complement surveys in that they can confirm, disconfirm or transform one's hypothesis, setting up alternative re-

search strategies or making sense of what has been extracted from those strategies. This has certainly been true for this study, which would have suffered from significant ambiguity without the thicker qualitative data that helped me bridge gaps and make me see the limitations of my original ideas and constructs.

## 5.2 Suggestions for further research

The fact that I used an opportunity sample restricts the generalizability of my research. Moreover, the elite interviews revealed several important topics and themes that were left out of my survey instrument. **The research findings of this study can be useful in informing the design of a new and improved survey instrument** that can be directed to a larger random sample of Peruvian employers, ensuring the generalizability of the results. The improved survey instrument would need to include questions that were left out, and later identified as important in the elite interviews, such as those related to user satisfaction and user experience with e-learning. Similarly, some survey questions could be left out, such as those related to contact networks and internationalisation, since they seemed to have little relevance to the respondents.

According to Venkatesh and Davis (2000), in a context where technology use is mandatory, the role of social influence weakens over time and eventually becomes irrelevant with constant technology usage. Considering the COVID-19 pandemic that our world is experiencing at the time I am writing these conclusions, another highly relevant topic for future research would be **the implications of Peru's strict quarantine and social distancing measures on the adoption of novelty technology**. Today, everyone from schoolchildren and university students to parents, employees and small business owners have suddenly been forced to become acquainted with ICT and e-learning. Has this 'mandatory technology use' had the impact on e-learning motivation and intention of use suggested by Venkatesh and Davis and the UTAUT model? This question will be examined further in the following Section, where I will engage in a discussion regarding the paradigm shift catalysed by the global pandemic and its implications for the future of e-learning in Peru.

## 5.3 Discussion on the future of e-learning in Peru

One of the starting points of this study was the argument that employer perceptions are important and that they should be taken into account in order to successfully disseminate e-learning in Peru. My affirmation that employer perceptions matter was founded, on one hand, on the UTAUT model, which claims that people adopting novelty technology care about what 'important others' (such as employers) think. On the other hand, it was supported by a recent survey conducted in Peru regarding potential adult students habits and attitudes towards e-learning (ISIL, 2018).

In other words, my study represents an effort to engage in an under-researched area dealing with employer perceptions as a source of social influence that has affected e-learning motivation and intention of use negatively in Peru. I say 'has', because clear indications of a paradigm shift can be observed since I finalized the process of primary data collection in February 2020.

Today, in a country that has been on lockdown since March 16th, e-learning has become the new normal for millions of school children and university students around the country. Moreover, the situation is said to continue until the end of the year. The students who do not own a computer are participating in synchronous and asynchronous learning activities on their cell phones. Employees, from CEOs to executive assistants, have had to learn to work remotely five days a week. Independent workers have been obliged to learn to manage their small business online, to build a webpage, to use financial technology for mobile payments etc. Everyone and everything is going *online*. Suddenly, a global health pandemic has become the unstoppable catalyst for a digital leap no one in Peru could have ever anticipated.

What implications does such a radical shift have on the UTAUT model? Or the model by Cai (2013) regarding employer perceptions of job candidates? My interpretation is the following. By the end of 2020, Peru will no longer find itself in the early stages of e-learning platform usage, due to quarantine measures affecting schools, universities and corporate training. In this new context, where technology use is mandatory, the role of social influence will weaken considerably

over time and eventually become irrelevant with constant technology usage. In other words, it will no longer represent a relevant factor determining e-learning motivation and the use of educational portals. Nevertheless, what will happen once the quarantine is lifted? Will people forget about e-learning and go back to their traditional ways of studying? I consider it unlikely, since the study by Torres Maldonado et al. (2011) suggests that the use of e-learning portals has a positive impact on e-learning motivation. In other words, if people try e-learning, it is probable that they will want to do it again.

Does this mean that employers perceptions do not matter in this new context? Will they not continue to be the people whose attitudes towards job-seekers are crucial in the final recruitment decisions and who are effectively acting as 'gatekeeper' to the labour market? The answer is yes, of course they matter. What is very likely, however, is that those perceptions are currently going through a paradigm shift, as well. From the perspective of new institutionalism, employers beliefs are developed within institutional frameworks (Cai, 2013, p. 462). What affects the creation of an institutional framework is a process of system structuring. Compared to actor structuring, system structuring takes a longer time. It takes place at the level of an entire group, or in an organisational field. It is my interpretation, that such a system structuring is taking place in Peru right now. Consequently, employers are likely to start imitating other companies that have been successful in enhancing productivity by recruiting people with e-learning qualifications. As such, the collective sense making is developed through mimetic learning, which occurs when actors facing uncertainty try to emulate successful organisations as a solution (Ibid.).

In conclusion, the current context facilitates a 'trial and error process' described by Cai (2013, p. 459), during which employers perceptions develop as they learn from the *real* performance of employees holding ODL credentials. However, in doing so, they are ignoring a very strong 'initial signal' emitted by the highest educational authority in the country. The Ministry of Education of Peru has currently a policy of denying re-validation to those foreign Bachelor's degrees that have included over 50 % of e-learning, as well as those foreign postgraduate degrees that have been offered fully online (Law N° 30220, Art. 47). Changing this piece of legislation, as well as improving connectivity, would mean that the

paradigm shift that is currently catalysed by a global pandemic would find more support in both the institutional framework and the facilitating conditions. In such a scenario, the future of e-learning in Peru would certainly look very bright, potentially leading to a larger cultural and digital transformation of society.

**REFERENCES**

Antonakis, J., Bendahan, S., Jacquart, P., & Lalive, R. 2010. On making causal claims: A review and recommendations. The Leadership Quarterly 21, 1086-1120.

Bailly, F. 2008. The role of employers' beliefs in the evaluation of educational output. Journal of SocioEconomics, 37 (3), 959–968.

Blaikie, N.W.H. 2000. Designing Social Research: The Logic of Anticipation. Cambridge: Polity Press.

Cai, Y. 2013. Graduate employability: A conceptual framework for understanding employers' perceptions. Higher Education, 65 (4), 457-469.

Carey, K. & Blatnik, S. 2005. E-learning and economic development. Turkish Online Journal of Distance Education, Vol. 6 No. 1, 22-33.

Cohen, L., Manion, L., & Morrison, K. 2018. Research methods in education (8th edition). New York: Routledge.

Creswell, J.W. & Plano Clark, V.L. 2007. Designing and Conducting Mixed Methods Research. London: SAGE.

Dillman, D.A., Smyth, J.D. & Christian, L.M. 2014. Internet, Phone, Mail and Mixed-Mode Surveys: The Tailored Design Method (4th edition). Hoboken, NJ: John Wiley & Sons.

Dillon, J. T. 1984. The Classification of Research Questions. Review of Educational Research, 54 (3), 327–361. Retrieved December 8, 2019 from https://doi.org/10.3102/00346543054003327

Einspruch, E. L. 2005. An introductory guide to SPSS for Windows. London: SAGE Publications. Retrieved January 10, 2020 from http://methods.sagepub.com.libproxy.tuni.fi/book/an-introductory-guide-to-spss-for-windows

E-learning Portal. 2009. E-learning glossary. Retrieved December 8, 2019 from http://www.e-learningguru.com/glossary/e.htm

Garrison, D.R. and Anderson, T. 2003. E-learning in the 21st century. A framework for research and practice. London: RoutledgeFalmer.

Gläser, J. and Laudel, G. 2013. Life with and without coding: two methods for early-stage data analysis in qualitative research aiming at causal explanations. Forum Qualitative Sozialforschung/Forum: Qualitative Social Research, 0, 2013, Vol. 14 (2). Retrieved January 10, 2020 from https://search-proquest-com.libproxy.tuni.fi/docview/1356976111/fulltextPDF/55958FD32B7A45D7PQ/1?accountid=14242

González-Videgaray, M. 2007. Evaluación de la reacción de alumnos y docentes en un modelo mixto de aprendizaje para educación superior. RELIEVE, 13 (1). Retrieved December 8, 2019 from http://www.uv.es/RELIEVE/v13n1/RELIEVEv13n1_4.htm

Hochschild, J.L. 2009. Conducting intensive interviews and elite interviews. Workshop on Interdisciplinary Standards for Systematic Qualitative Research. Retrieved January 10, 2020 from https://scholar.harvard.edu/jlhochschild/publications/conducting-intensive-interviews-and-elite-interviews

ISIL – Instituto San Ignacio de Loyola. 2018. Hábitos y percepción de la educación virtual. Lima: ISIL. Retrieved December 8, 2019 from https://landing.isil.pe/isil-estudio-habitos-y-percepcion-de-la-educacion-virtual/

Jereb, E. & Smitek, B. 2006. Applying Multimedia Instruction in E-Learning. Innovations in Education and Teaching International, 43 (1), 15-27. Retrieved December 8, 2019 from https://www.learntechlib.org/p/99020/

Kawulich, B. 2005. Participant Observation as a Data Collection Method. Forum Qualitative Sozialforschung / Forum: Qualitative Social Research, [S.l.], Vol. 6, No. 2. Retrieved December 8, 2019 from http://www.qualitative-research.net/index.php/fqs/article/view/466/996

Lai, P. 2017. The Literature Review of Technology Adoption Models and Theories for the Novelty Technology. JISTEM - Journal of Information Systems and Technology Management, 14 (1), 21-38.

Lee, T., & Lee, J. 2006. Quality assurance of web based e-learning for statistical education. COMPSTAT: Proceedings in Computational Statistics: 17th Symposium, Rome.

Libaque-Saenz, C.F. 2016. Strategies for Bridging the Internet Digital Divide in Peru: A Benchmarking of South Korea and Chile. CONF-IRM 2016 Proceedings. Paper 17. Retrieved December 8, 2019 from: http://aisel.aisnet.org/confirm2016/17

Lowenthal, P., & Wilson, B. G. 2010. Labels do matter! A critique of AECT's redefinition of the field. TechTrends, 54 (1), 38−46. Retrieved January 10, 2020 from: https://www.learntechlib.org/p/65549/

Marzi, B. & Zegarra, M. 2018. Trends in regional inequality in Peru, 1795-2016. Conference Paper, June 2018. Retrieved December 8, 2019 from: https://www.researchgate.net/publication/326571442_Trends_in_regional_inequality_in_Peru_1795-2016/

Moore, J.L., Dickson-Deane, C. and Galyen, K. 2011. E-Learning, online learning, and distance learning environments: are they the same? The Internet and Higher Education, Volume 14, Issue 2, Pages 129-135. Retrieved December 8, 2019 from: https://doi.org/10.1016/j.iheduc.2010.10.001

Morse, J. M. 2004. Purposive Sampling. In M. S. Lewis-Beck, A. Bryman, & T. F. Liao (Eds.), The SAGE Encyclopedia of Social Science Research

Methods. Thousand Oaks California: Sage Publications, Inc.

Newby, P. 2010. Research Methods for Education. Harlow, UK: Pearson Education Ltd.

PISA. 2018. Country overview: Peru. Retrieved December 8, 2019 from: https://www.compareyourcountry.org/pisa/country/PER?lg=en

QS University Rankings. 2020. Latin American University Rankings 2020. Retrieved December 8, 2019 from: https://www.topuniversities.com/university-rankings/latin-american-university-rankings/2020

Plowright, D. 2011. Using mixed methods: Frameworks for an integrated methodology. London: SAGE Publications Ltd.

Redline, C.D., Dillman, D.A., Carley-Baxter, L., and Creecy, R. 2003. Factors that influence reading and comprehension in self-administered questionnaires. Paper presented at the Workshop on Item-Nonresponse and Data Quality, Basel, Switzerland, 10 October. Retrieved December 8, 2019 from: https://sub-sites.sesrc.wsu.edu/dillman/papers/2003/factorsthatinfluencereading.pdf

Robbins, D. 2009. Understanding Research Methods. New York: Routledge.

Ruuskanen, M., Marchena, J.M. & Curcher, M. 2019. E-Learning in Peru: Habits and Attitudes Towards Online Distance Learning. In J. Theo Bastiaens (Ed.), Proceedings of EdMedia + Innovate Learning (pp. 470-474). Amsterdam, Netherlands: Association for the Advancement of Computing in Education (AACE). Retrieved December 8, 2019 from https://www.learntechlib.org/primary/p/210041/

Sangrà, A., Vlachopoulos, D., & Cabrera, N. 2012. Building an inclusive definition of e-learning: An approach to the conceptual framework. The International Review of Research in Open and Distributed Learning, 13 (2), 145-159. Retrieved December 8, 2019 from: https://www.researchgate.net/publication/281563079_Building_an_Inclusive_Definition_of_E-Learning_An_Approach_to_the_Conceptual_Framework

Scott, W. R. 2008. Institutions and organizations: Ideas and interests (3rd edition). London: SAGE.

Strategies for Qualitative Interviews. (n.d.). Retrieved December 8, 2019 from https://sociology.fas.harvard.edu/files/sociology/files/interview_strategies.pdf

Tashakkori, A. and Teddlie, C. (eds). 2003. Handbook of Mixed Methods in Social and Behavioral Research. London: SAGE.

Teichler, U. 2009. Higher education and the world of work: Conceptual frameworks, comparative perspectives, empirical findings. Global perspectives on higher education, Vol. 16. Rotterdam: Sense Publishers. Retrieved January 10, 2020 from: https://www.semanticscholar.org/paper/Higher-Education-and-the-World-of-Work%3A-Conceptual-Teichler/d6f0147ce8c264d1aa57d1c422c362037d3aeacc

Torrance, H. 2012. Triangulation, Respondent Validation, and Democratic Participation in Mixed Methods Research. Journal of Mixed Methods Research, 6 (2), 111–123. Retrieved December 8, 2019 from: https://doi.org/10.1177/1558689812437185

Torres Maldonado, U. P., Gohar, F. K., Moon, J., & Jae, J. R. 2011. E-learning motivation and educational portal acceptance in developing countries. Online Information Review, 35 (1), 66-85. Retrieved December 8, 2019 from: https://pdfs.semanticscholar.org/b9e8/682ee98b8a681c7542e007c7fa66cfdcd811.pdf

Trichenor, P.J., Donohue, G.A. and Olien, C.N. 1970. Mass media flow and differential growth in knowledge. Public Opinion Quarterly, Vol. 34 No. 2, 159-70. Retrieved December 8, 2019 from: http://dx.doi.org/10.1086/267786

UNESCO 2018. Illiterate population in Peru. UNESCO Institute for Statistics. Retrieved December 8, 2019 from: http://uis.unesco.org/en/country/pe

Venkatesh, V. & Davis, F. 2000. A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies. Management Science, 46, 186-204.

Venkatesh, V., Morris, M., Davis, G. & Davis, F. 2003. User Acceptance of Information Technology: Toward a Unified View. MIS Quarterly, 27, 425-478.

Volery, T., & Lord, D. 2000. Critical success factors in online education. International Journal of Educational Management, 14 (5), 216−223.

Whyte, W.F. 1993. Street Corner Society: The Social Structure of an Italian Slum (4th edition). Chicago, IL: University of Chicago Press.

# APPENDICES

## Appendix 1. Online questionnaire

PERCEPTIONS ON E-LEARNING

Q1: Gender

- male
- female

Q2: Age

- 18-24
- 25-34
- 35-44
- 45-54
- over 54

Q3: Level of education

- basic education completed
- High school diploma
- Technical Higher Education Degree
- University degree
- Postgraduate certificate or diploma

Q4: The size of the organization where I hold a top management position

- Microenterprise (up to 10 employees)
- Small (between 11 and 50 employees)
- Medium-sized (between 51 and 200 employees)

Q5: ‘E-learning’ is understood here as the transfer of knowledge by means of an educational platform which one can access through the Internet. E-learning can be free of charge or paid for and its duration can vary. Considering the aforementioned definition: Have you ever studied a course/subject/study program virtually, even if you did not conclude it?

- Yes

- No
- I do not recall

Q6: How many e-learning courses or programs have you participated in? Please, also include the ones you did not conclude.

- None
- Between 1 and 4
- Between 5 and 7
- Between 8 and 10
- Over 10
- I do not recall

Q7: What type of e-learning courses or programs have you participated in?

- Master's degree program
- Certificate program or Specialization
- Undergraduate degree program
- Short-term courses and training
- I do not remember / does not apply

Q8: What type of institutions offered the e-learning you participated in?

- Local university
- Foreign university
- Local institute
- Foreign institute
- Online portal (e.g. Coursera, Crehana, NextU, Open English)
- My company
- Other
- I do not recall / does not apply

Q9: When evaluating the professional profiles of job candidates...

- I value traditional face-to-face education over e-learning.
- I value both the same, if an institution I consider prestigious has accredited the e-learning.
- I value international higher education in a special way, no matter if it has been offered online or face-to-face.

- I do not believe e-learning offers the same level of professional networking.
- I evaluate each candidate's educational credentials case by case, without predetermined preferences regarding the study format (online or on campus).
- None of these options reflect my attitudes.

Q10: I hold a top management position in…

- The extractive sector
- Manufacturing and construction
- Public services
- Private services
- *) I develop or sell online learning products/services [filter]
- Other

## Appendix 2. Interview guide

‘E-learning’ is understood here as the transfer of knowledge by means of an educational platform which one can access through the Internet. E-learning can be free of charge or paid for and its duration can vary. Considering the aforementioned definition: Have you ever studied a course/subject/study program using this format, even if you did not conclude it?

What was that experience like? Would you recommend it?
What are your general perceptions of people who have studied online?

Are there many people in your company who have earned their educational credentials studying online?

How would you react if two job candidates had very similar profiles but one had earned his/her educational credentials online instead of the traditional way?
Why do you think that is?

What if a prestigious institution had accredited the e-learning?
What if a foreign institution had accredited the e-learning?
Why do you think that is?

Do you consider the personal contact networks that an employee can bring with them to the company as a valuable asset? Do you think that these can be either positively or negatively affected by e-learning? Why do you think that?

What do you think is the general sentiment among Peruvian employers towards professionals who have earned their qualifications through e-learning?
Why do you think that the majority of potential adult students living in Lima think that e-learning is not positively viewed by companies?

What would make e-learning more appealing to you personally?