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#### RESEARCH ARTICLE

## Soft Skills: Connecting Classrooms with the Workplace—A Systematic Review

Mohammed El Messaoudi 

#### ABSTRACT

**Background/purpose** – Recent evidence concedes that the modern workplace has recently undergone a tremendous change. Emerging workplace exigencies shifted the pendulum towards soft skills, a new [old] set of skills significantly required (from employees) by employers. In response, the “Bachelor System” has been adopted by the Moroccan Ministry of Education and Training as a panacea to accoutre university students with these on-demand skills.

**Materials/methods** – This systematic review was geared towards retrieving, synthesizing, and appraising the literature on soft skills development and workplace readiness attributes desired by stakeholders in the Moroccan context. The study shed light on (20) journal articles (as the main unit of interest) published over a decade, ranging from January 2011 to February 2021 on soft skills in both higher education and the business sector.

**Results** – Key results (generated via NVivo) accentuated the omnipresence of a soft skills gap (a mismatch) between academia and business, the extreme importance of soft skills in today’s local economy, and the urgent need to embed a specific set of soft skills in higher education curricula in order to prepare graduates for future jobs.

**Conclusion** – Based on the systematic review and analysis of 20 articles, there is solid evidence that building a stronger Morocco requires building a more soft-skilled workforce.

**Keywords** – Soft skills, workplace readiness, skills gap.

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## 1. INTRODUCTION

The past was HARD, the present is SOFT, and the future will be SOFTER. Evidence ascertains that these premises held, are holding, and will be held as true. Previous studies indicate that the past was hard in the sense that there was a heavy reliance upon “hard skills” to undertake manual tasks (Litecky et al., 2004). Human beings and machines were aligned to undertake assorted manual and mechanical jobs that required “hard skills.” These hard [technical] skills were, and still are, job-specific, and therefore not transferable between industries and businesses (Laker & Powell, 2011). The rise of “the machine” in the 19<sup>th</sup> century, coupled with the advancement of industrialization [hallmarked by mass production, the assembly line, electricity, and computerized automation] saw a huge technological leap forwards that increased both productivity and fears about the gloomy destiny of thousands of workers who would otherwise have been rendered jobless (Virilio, 1994). The idea that “machines are coming to take our jobs” has been a real concern for hundreds of years owing to the massive disruption they have caused in the workplace; however, oddly enough, they have also created increased prosperity and opportunity far more than they have allegedly destroyed it (O’Sullivan, 2021). Markedly, owing to the rise of machines and disruptive technologies, the thumb rules of the employability game have drastically changed. Along this line of reasoning, as opposed to the “hard” of the past, the present has transformed to become considered as “soft” in its style of business and industry.

Current research demonstrates that the pendulum is in now favor of a [old] new skill set, “soft skills” (Binsaheed et al., 2017; Deming, 2017; Hirsch, 2017; Robles, 2012; Sharma & Sharma, 2010). Today, considerable emphasis is being placed on soft skills, since the corporate world is riding a new wave of uncertainty as it realigns to the rapid pace of innovation and avant-guard technology, acting on the modern life and work. In a way that leaves no doubt, you do not need to think twice to conclude that automation and globalization are greatly swaying the employability skillset required by employers in various industrial sectors. Recent studies on the topic [the changing nature of skills] have argued that the future will be much softer. Various different studies (based on solid evidence) have underscored that whilst hard skills may well grant you an interview, you will need significant soft skills to get, and keep, the job (Binsaheed et al., 2017; Deming, 2017; Kyllonen, 2013; Majid et al., 2012; Patacsil & Tablatin, 2017; Sharma & Sharma, 2010).

It is interesting to note that the avant-guard technology, wherein robots [highly sophisticated machines] are taking the lead, is now taking over thousands of routine tasks in the workplace and eliminating many low-skilled jobs in both advanced economies and developing countries alike. By the same token, this disruptive technology is creating countless opportunities, paving the way for new and enhanced jobs to come to light, increasing productivity, and improving the delivery of public services (El Hamdi et al., 2018; Marengo, 2019; Marsh, 2012; Pinzone et al., 2017; Rutkowska & Sulich, 2020). It is important to call attention to the fact that many students will work [as adults] in jobs that do not even exist today, which will presumably make the future workplace much softer. This will completely change the landscape of jobs, and will lead to the emergence of new jobs (e.g., data analysts, AI machine learning specialists, general and operations managers, big data specialists, organizational development specialists, information technology services, digital ninjas, etc.) and the decline of others (e.g., data entry clerks, accounting clerks, bookkeepers, payroll clerks, assembly line and factory workers, accountants and auditors,

material recording and stock-keeping clerks, postal service clerks, etc.) (World Economic Forum, 2020).

In congruence with the previous line of thought, Industry 4.0, as a vision [for life and work], cogitates that machines will replace many jobs that require manual tasks in the future. People will be hired to do new jobs that machines cannot do. These [green] jobs circle the ability [abilities] to use abstract reasoning, critical thinking, emotional intelligence, and so on in order to do certain tasks (Bonekamp & Sure, 2015; Rutkowska & Sulich, 2020). This new vision to life and work compels today's students [as future employees] as well as the current workforce to learn a new set of non-technical and non-cognitive skills, globally known as "soft skills." It is worth noting here that education should be a mirror image of industry. Ergo, education has been invited to align with the mission of Industry 4.0 and to update its teaching-learning processes in order to meet the needs and demands of Industry 4.0. To set the record straight, Industry 4.0 does not rely upon steam engines, electricity, mass-production, or information and communication technologies, but rather it relies upon mass scale automation and data exchange within manufacturing technologies (Bonekamp & Sure, 2015; El Hamdi et al., 2020; Pinzone et al., 2017; Rutkowska & Sulich, 2020).

This trend deploys very sophisticated technology that requires very minimal human involvement, and is set to become the future of life and work. As Industry 4.0 unfolds, more and more computers and gadgets are becoming connected, communicating with one another [using technologies such as Internet of Services, Internet of Things, Cloud Physical Systems, and the Smart Factory] to ultimately make decisions without need for human involvement (Bonekamp & Sure, 2015; Pinzone et al., 2017; Rutkowska & Sulich, 2020). To exemplify, here is a super easy explanation for anyone familiar with the current-day Moroccan context. Recently, there has been an innovative advertisement being played on Moroccan television for iBed (Salidor, 2021). The iBed mattress allows you to measure your sleep, sleep phases, heart rate, snoring intensity, and detect your respiratory disturbances. Then, the results are analyzed via an algorithm by a team of "sleep experts" and forwarded to a team of "slumber experts" for further analysis and feedback to the customer. As demonstrated, there is machine-to-machine communication, with minimal or no human involvement. Human beings [experts] are invited to engage in non-technical tasks that require non-cognitive [soft] skills such as creative thinking, problem-solving, data analysis, and decision-making, etc., to interpret and make sense of data generated through machine-to-machine communication.

## 2. LITERATURE REVIEW

### 2.1. *Soft Skills: Definitional Issues*

Generally speaking, skills refer to the level of performance of an individual on a particular task or the capability to perform a job well. Several studies suggest that skills can be divided into [hard] technical aspects and [soft] behavioral aspects (Litecky et al., 2004; Noe et al., 2015; Winterton & Stringfellow, 2006). Etymologically, the term "Soft Skills" was coined by the U.S. Army in the late 1960s to refer to any skill that employs the use of machinery. The term "soft skills" has since been used in business, educational settings, and in corporate meetings (Heckman & Kautz, 2012; Matteson et al., 2016; Wats & Wats, 2009). In a book by Winterton and Stringfellow (2006) entitled "Typology of Knowledge, Skills and Competences: Clarification of the Concept and Prototype," it was stated that life skills, social skills, interpersonal skills, leadership skills, transversal competencies, social competencies,

and meta-competencies are synonymous with soft skills, and that these are commonly used to refer to the “emotional side” of human beings as opposed to the Intelligent Quotient (IQ) component that in turn relates to hard skills.

Various researchers have defined soft skills in line with the context of their studies (Claxton et al., 2016). In their seminal work, “Soft skills: A Phrase in Search of Meaning,” Matteson et al. (2016) affirmed there being no consensus on a single definition with respect to soft skills, and that is still the case today. Apart from “soft skills,” they can also be referred to as “key skills,” “employability skills,” “generic skills,” “key competencies,” “transferable skills,” or “personal attributes” (Heckman & Kautz, 2012; Jackson, 2014; Kiel, 2016; Lauder, 2013). These skills include critical thinking, problem-solving, public speaking, professional writing, teamwork, digital literacy, leadership, professional attitude, work ethic, career management, and intercultural fluency, to name but a few. The latter are diametrically opposed to hard skills, which are deemed specific to individual professions (Claxton et al., 2016; Lippman et al., 2015). The nearest to an all-encompassing definition is taken from Haselberger et al. (2012) within the ModEs project:

Soft skills represent a dynamic combination of cognitive and meta-cognitive skills, interpersonal, intellectual and practical skills. Soft skills help people to adapt and behave positively so that they can deal effectively with the challenges of their professional and everyday life. (p. 67)

## *2.2. Hard Skills and Soft Skills: The Great Discrepancy*

### *2.2.1. Main Features of Hard Skills*

Given all that has been mentioned so far, it can be said that there is a significant difference between hard skills and soft skills. To further illustrate the disparity, in analogous terms, a carpenter’s hard skills would be their ability [abilities] to use different hand tools (e.g., plane, mallet, handsaw, chisel, etc.) in order to create different wooden objects (e.g., chair, sofa, table, shed, chest, etc.). The ability to use specific tools to make specific objects are therefore job-specific by nature. Completely different from hard skills, soft skills are the ability [abilities] to work under pressure, to meet deadlines, to be honest and have strong moral principles [integrity and work ethics], to bring reasoning into play, convince clients, negotiate and seal different deals. That being the case, soft skills as illustrated, are personal attributes that revolve around how well an employee can perform a job and interact with others in the workplace.

Research studies of the main features of hard skills are well documented, and it is also well acknowledged that hard skills are a fusion of both the technical expertise and the knowledge needed to do a specific job. To expound, if you studied to become a doctor, you should know how to diagnose an illness or determine which drug should be prescribed to treat a specific illness. If you do not possess the right knowledge or know-how, you will not be able to practice your profession as a doctor. In the world of work, “hard skills” are deemed as being technical or administrative procedures related to an organization’s core business (Heckman & Kautz, 2012; Kennedy, 2016; Patacsil & Tablatin, 2017). To put it another way, tasks including machine operation, computer protocols, safety standards, financial procedures, and sales administration are classic examples of what is referred to as “hard skills.” A large number of existing studies in the broader literature have clearly reported that hard skills are those achievements included on a résumé, such as education, work experience, knowledge, and level of expertise (Robles, 2012). Comparatively, several

studies suggest that these [hard] skills are typically easy to teach, learn, observe, quantify, and measure. These skills are fundamental as they help employees to develop knowledge about a particular domain or job (Zhang, 2012).

All things considered, hard skills, as mentioned earlier, are the things [skills, abilities, and competencies] you learn through formal education and training. These years of formal education and training are what help individuals to acquire hard [technical] skills, which are then often needed later in any chosen career path or business.

### *2.2.2. Main Features of Soft Skills*

On the flip side, unlike hard skills, which delineate a person's technical skillset and ability to perform specific tasks, soft skills are broadly applicable across various jobs and sectors of industry. This has previously been discussed significantly in the literature, with some authors also having suggested that hard skills may grant you an interview, but you need soft skills to get, and keep, the job (Deming, 2017; Heckman & Kautz, 2012; Hirsch, 2017; Kyllonen, 2013; Mansour & Dean, 2016; Tejan & Sabil, 2019). Concerning the world of business, companies highly appreciate employees who showcase skills such as setting a good example, team building, facilitating meetings, encouraging innovation, problem solving, decision-making, planning, delegation, observation, as well as instructing, coaching, encouraging and motivating [oneself and others]. De facto, soft skills indicate a high level of emotional intelligence (Andrews & Higson, 2008; Kennedy, 2016; Laker & Powell, 2011).

Over time, extensive literature has developed on the main features of soft skills (also called "people skills"). Interestingly, one main feature that is often overlooked is that they [soft skills] are in fact needed just as much in everyday life as they are for work. Back to the hard skills example; a doctor who attentively listens to patients empathizes with them, but does not reveal their private secrets to anyone as they were given in confidence and protected under rules and ethics of doctor-patient confidentiality. The doctor does the job well, and with great respect to the established work ethics [from diagnosis, prescription, to control]; as such they can be labeled as a doctor who possesses strong soft skills. Taking the matter one step further, soft skills are not only to be found in the workplace; they extend to daily life as well (Majid et al., 2012; Sekhar, 2019; Sharma & Sharma, 2010). In this regard, the editorial team at GeekInterview (2010) provided the following as a solid summary:

Hard skills and soft skills are never meant to compete with each other; in fact, they should, ideally, complement the other. Good education and proper training will indeed pave the way for success, but unless you are equipped with the necessary soft skills, your opportunities could all go down the drain. Hard skills and soft skills need to be learned and developed if you want to achieve success in your career. (Para. 8)

As stated, soft skills are deemed as a new [old] host of skills or talents that an individual [employee] can bring to the workplace. Notwithstanding, a closer look at the literature reveals several gaps and shortcomings with respect to soft skills development integration, teaching, and assessment. Unmistakably, most early studies as well as current work have shed significant light on soft skills [though highly required] as typically hard to teach, train, observe, quantify, and measure (Binsaeed et al., 2017; Bryce, 2004; Curtis, 2004; Luppi & Bolzani, 2019; Wats & Wats, 2009; Zhang, 2012).

Altogether, the aforementioned features make soft skills categorically discrepant and disparate from hard skills. These studies betoken the main features of soft skills as a specific

type of [inter] personal skills and attributes. It is widely attested that these skills set individuals apart and help them not just only to obtain a job, but to sustain it as well.

### *2.3. Ascendency of Soft Skills within a Changing World*

As previously reported in the literature, soft skills are now considered a major differentiator in the corporate world. Heckman and Kautz (2012) stated that soft skills are now a sine qua non for employability and general success in life. The significance that employers give to the topic is shown by the fact that soft skills are now considered as important as one's Grade Point Average (once the most important factor in decision-making) in hiring a new employee (Succi, 2015). Many researchers have concluded from their research that employers are more likely to recruit applicants with better soft skills than those with significant hard skills (Kennedy, 2016; Kyllonen, 2013; Majid et al., 2012; Sharma & Sharma, 2010). Whilst employers believe that they can instill and enhance the knowledge and technical skills of an employee, it is considered very difficult to develop and teach soft skills. Hence, the modus operandi is to hire new employees that possess a wide range of soft skills rather than hard skills (Litecky et al., 2004; Zamudio & Lichter, 2008); with employers arguing that they recruit based on attitude as they can provide skills training for novice recruits (Andrews & Higson, 2008; Charoensap-Kelly et al., 2016; Litecky et al., 2004; Noah & Aziz, 2020; Tsirkas et al., 2020).

Equally important, as the renowned psychologist Daniel Coleman has repeatedly reiterated, are the value of soft skills; that an individual's ability to know and manage themselves, as well as their relationships with others, is twice as important as their intelligence quotient (IQ) (GeekInterview, 2010). Following the globalization and digital revolution, the skills required to sustain the ever-changing demands of the workplace have changed significantly (Messum et al., 2015). Research has provided evidence that constant pressures have changed the work environment, and recurrent waves of disruptive changes have summoned current [as well as future] employees to become better prepared for these changes, and that this can only be made possible where they have [or improved] the desired soft skills to face today's diverse societal and professional challenges (Deming, 2017; Ellis et al., 2014; Hirsch, 2017).

Earlier studies by the Stanford Research Institute and the Carnegie Mellon Foundation on Fortune 500 CEOs found that 75% of long-term job success was deemed to be dependent on soft skills, whilst only 25% were related to technical skills (National Soft Skills Association, 2017). In a survey conducted by Harvard University, researchers confirmed that 80% of career achievement was determined by soft skills, and that only 20% was from hard skills (Deepa & Seth, 2013). Expressively, the Nobel Laureate for the economy, James J. Heckman, in an article entitled "Hard Evidence on Soft Skills," stated "...that soft skills predict success in life, that they casually produce that success, and that programs that enhance soft skills have an important place in an effective portfolio of public policies" (Heckman & Kautz, 2012, p. 451). It necessarily follows that acquiring, practicing and utilizing soft skills (such as team-working skills, innovative and critical thinking skills, and also problem-solving skills) have become vital to succeed and indeed survive in the modern workplace. Where this ethos is not followed, a soft skills gap will not only exist, but continue to persist.

### *2.4. The Soft Skills Gap*

The "soft skills gap" is a hot topic today in both academia and business. Basically, the skills gap is a bilateral tension between employers, educators, and job seekers with regards

to expectations, needs, and wants. In a newspaper article entitled, “The Real Reason New College Grads Can’t Get Hired,” White (2013) noted that, “the entry-level candidates who are on tap to join the ranks of full-time work are clueless about the fundamentals of office life.” White posited that somewhere along the road from education to employment, the system is not routinely equipping students with all the essential skills that they will need in order to achieve success.

Significantly, the skills gap is seen as a plain mismatch between market needs and the educational system [university] output. In this regard, Barnard et al. (2001) argued that the job-matching theory asserts that a mismatch between the required skills and the skills that a graduate possesses can significantly impact upon their potential to secure a job, receive a good salary, and to realize high levels of productivity. They concluded that the skills of graduates must be equivalent to those required by employers. In a book entitled “Bridging the Soft Skills Gap: How to Teach the Missing Basics to Today’s Young Talent,” Tulgan (2015) stated that the ever-widening soft skills gap is seen as the number one challenge facing today’s young talent. Tulgan also declared that the soft skills gap should be considered a problem hiding in plain sight. In “Meeting the Demand: Teaching Soft Skills,” Wilhelm et al. (2002) contested that gaps between affective or “soft” skills demanded by today’s employers and those provided by our educational institutions seems to exist.

Despite all the efforts by educators to improve graduates’ soft skills and produce work-ready graduates, many employers are *still* not satisfied with the soft skills and employability quality of new graduates (Agus et al., 2011; Corti et al., 2014; Morrison et al., 2011; Tsirkas et al., 2020; Tulgan, 2016) (Wilhelm et al., 2002).

It is noteworthy to report that soft skills gaps have been observed by researchers in various parts of the world, including Australia, India, the United States, the United Kingdom, Malaysia, Uzbekistan, and Pakistan (Munro, 2017; Singh Dubey et al., 2021; Tsirkas et al., 2020). Locally, in Morocco, the problem [soft skills gap] also still seems to exist. The Moroccan corporate sector has nationally started grumbling over an omnipresent gap between how universities prepare and train students, and what the job market is really demanding in terms of new graduates (Bouziane & Elaasri, 2019; El Hamdi et al., 2020; El Mellouki, 2015; Elmouhtarim, 2018; Tejan & Sabil, 2019; Zakia, 2015). Previous studies have stressed that it is getting significantly harder to find job applicants with the right level of soft skills. Moroccan experts insist that technical skills *alone* do not make Moroccan students [as future employees] competitive in either the local or global job market. The majority of prior research has outlined that although soft skills are deemed necessary for professional success, most university classes in Morocco still do not incorporate them into their curricula, which leads to significant gaps in entry-level workers’ communication skills, team/interpersonal skills, problem-solving, critical thinking, business process knowledge, and project management skills (USAID, 2017).

In brief, developing hard skills from university education may seem like a winning strategy for postgraduate employment. However, according to today’s employers, neglecting soft skills –such as communication, self-motivation, teamwork, leadership, work ethics, and flexibility– can be considered a serious miscalculation, and which usually leads to a soft skills gap [mismatch].

Notwithstanding, very few studies in the literature have investigated the soft skills gap in the Moroccan context. In order to address this gap, the current study aims to

systematically review the current literature. The major objectives of this review are to a) guide future research on the soft skills gap in Morocco, b) provide a clear statement of results and discuss conclusions on the rift between academia and business with regards soft skills development, and c) facilitate soft skills development (teaching, learning, and assessment) decisions by different stakeholders.

### 3. METHODOLOGY

Principally, a systematic review should not be regarded as a literature review in the traditional sense. A systematic review is a self-contained research project in itself that explores a specified question, usually derived from a policy or practice problem based on existing studies (Denyer & Tranfield, 2009). It is effectively a study conducted about studies published on various interventions. The benefit of the systematic review is that it is a one-stop-shop summary of the published evidence concerning a specific research [review] question (Aromataris & Pearson, 2014). Singularly, a systematic review uses a specific methodology to locate existing publications, select studies, evaluate contributions, analyze and synthesize data, and then report the evidence in such a way that allows reasonably clear conclusions to be reached about what is and is not known (Denyer & Tranfield, 2009; Khan et al., 2003; Whiting, 2009). Distinctly, a systematic review diverges from other review methods [scoping review, meta-analysis] owing to distinct protocols. A key characteristic of a systematic review is to develop a protocol, showcasing a clearly stated set of stages, objectives, and steps. Manifestly, the current study presents a systematic review that followed the four phases suggested by Denyer and Tranfield (2009) in their seminal article, "Producing a Systematic Review." The protocol in question helps to achieve both transparency and repeatability (reproducible methodology) of the study.

This systematic review was undertaken [on accounts of transparency and repeatability] in order to investigate the importance of soft skills in today's workplace, the soft skills gap, and ways to bridge the gap between academia and business in the Moroccan context (see Table 1). The planning phase helped establish the research aim, define objectives, and delimit the scope (time, logistics, and quality). Subsequently, there were serious attempts to determine the sampling phases (credibility, transparency, un-bias), and to refine the selection process by way of utilizing a review protocol. With regards to the analytical phase, focus was maintained on finding the best ways and practices to extract and categorize the evidence. Eventually, the reporting phase was geared towards providing a clear process for reproducibility through the drafting of a detailed report.

**Table 1.** Systematic Review Roadmap

Stage	Objectives	Steps
<b>Planning</b>	<ul style="list-style-type: none"> <li>- Set the research aim</li> <li>- Define objectives</li> <li>- Delimit scope (time, logistics, quality)</li> </ul>	<ul style="list-style-type: none"> <li>- Justify review objectives and scope</li> <li>- Screen key articles</li> <li>- Generate preliminary output (review protocol)</li> </ul>
<b>Sampling</b>	<ul style="list-style-type: none"> <li>- Determine sampling phases (credibility, transparency, un-bias)</li> </ul>	<ul style="list-style-type: none"> <li>- Screen databases</li> <li>- Select articles (review protocol)</li> <li>- Generate output (select relevant</li> </ul>

	- Refine selection process using a review protocol.	articles)
<b>Analyzing</b>	- Extract evidence - Categorize evidence	- Data extraction and coding - Generate output (descriptive analysis)
<b>Reporting</b>	- Provide a clear process (reproducibility)	- Draft detailed report

### 3.1. Protocol Development

Regarding the process for developing a review question, there are many ways of framing questions depending on the topic, discipline, or type of question. Several frameworks are listed in the literature (Butler et al., 2016; Denyer & Tranfield, 2009; Khan et al., 2003; Meade & Richardson, 1997). Like other research designs, the review question of systematic reviews should be feasible, interesting, novel, ethical, and relevant. Therefore, a clear, logical, and well-defined research question should be formulated using renowned frameworks. In line with the mainstream systematic review frameworks, the review question [*not research question*] was defined at the onset of the study. Significant effort was invested in order to formulate a review question based on the premise that a well-formulated question would help to determine appropriate study inclusion and exclusion criteria, the creation of a search strategy, data collection, and the presentation of results (Whiting, 2009). One tool [framework] commonly used in this is referred to as *Context, Intervention, Mechanism, Outcome*, (CIMO) logic. CIMO (Booth, 2013) was used in the current systematic review in order to formulate the following review [study] question (see Table 2) :

*Why is there a rupture [outcome] between Academia and Business [population] with regards to Soft Skills Development [intervention] in Morocco [context]?*

**Table 2.** CIMO Framework

<b>Context</b>	- Individuals of <b>i</b> nterest? - Relationships? - Settings? - Systems?	<b>Intervention</b>	- Soft Skills Development
	- Stakeholders ( <b>e</b> graduate/postgraduate, education and industry) - Human capital development - Workplace readiness		- Formal education and training? - Internships? - On-the-job training?
<b>Mechanism</b>	- Relationships between context and intervention?	<b>Output</b>	- Impact of interventions / soft skills development
	- Soft skills gap - Rupture between academia and business		- Reasons behind the soft skills gap - Soft skills underdevelopment

As shown, the review question first defines the population (P), then the intervention (I) or exposure. Next, it compares (C) the indicated intervention with other interventions, i.e., placebo, before finally clarifying the relevant outcome/s. To systematically address the review question, the CIMO framework was brought into play to retrieve, synthesize, and appraise the existing soft skills literature (otherwise, known as character skills, social skills, life skills, people skills, and/or employability skills), and workplace readiness attributes

desired by various stakeholders in the Moroccan context. The CIMO framework helped separate the research inquiry into its important concepts (Booth, 2013). Operationally, the CIMO framework (see Table 2) was also applied to construct and refine the review question, and then to delimit the scope of the systematic review.

### 3.2. Data Collection

A preliminary search was conducted in order to identify relevant articles, ensure the validity of the proposed idea, avoid duplication of previously addressed review questions, and assure that there are sufficient articles to conduct a systematic review [analysis]. Based on the CIMO framework, inclusion and exclusion criteria were clearly stated and justified. In terms of exclusion, publications that were not peer-reviewed, or are duplicates, out of context, or based upon irrelevant constructs were blackballed and blacklisted [excluded]. Regarding inclusion, peer-reviewed publications, peerless indexed articles, context-bound studies, and studies based on relevant constructs mapped the landscape of this systematic review.

For the sampling phase, leading databases such as ERIC, JSTOR, Google Scholar, Emerald, ProQuest, IEEE, Science Direct, Web of Science, and Scopus Elsevier were screened using keywords such as “soft skills,” “soft skills development,” “rupture between academia and business,” “talent development,” and “human capital development.” In total, the study identified 20 journal articles (as the main unit of interest) published over a 10 year period (January 2011 to February 2021) based on soft skills in higher education and business. Table 3 numerically details the search strategy.

**Table 3.** Search Strategy

108	Retrieved articles (databases)
92	Partly screened (title and abstract)
76	Fully screened (AIMRAD)
20	Included articles

### 3.3. Data Extraction & Analysis

During this phase, evidence was extracted from the selected sources and then categorized in order to produce emerging themes or theories. The list of included studies was prepared by two reviewers, and based upon previously determined eligibility criteria. Figure 1 presents the final list of studies included in the systematic review. The sources were directly imported from Endnote to NVivo. Figure 1 illustrates the included sources, together with the numbers of references and nodes from the coding:

- Coding passages of text under particular themes so that they can be analyzed together
- Searching all PDFs for words and related words
- Looking at word frequencies to spot potential trends
- Graphically analyzing bibliographic data to identify patterns for certain attributes such as publication trends, year of publication, methodology adopted, etc.

**Figure 1.** Final List of Studies

Internals		
Name	Nodes	References
Tejan, Oussama Ait;Sabil, Abdelkader; (2019) - 23	17	31
Mansour, Bassou El;Dean, Jason C.; (2016) - 14	15	36
Chaibate, Hind;Hadek, Amine;Ajana, Souad;Bakkali, Soumia;Faraj, Kenza; (2019	14	32
Rahhal, I., Makdoun, I., Mezzour, G., Khaouja, I., Carley, K., & Kassou, I. (2019, A	13	25
Khaouja, Imane;Mezzour, Ghita;Carley, Kathleen M.;Kassou, Ismail; (2019) - 16	13	45
Rahhal, I., Mezzour, G., Carley, K., & Kassou, I. (2018)	12	34
Chaibate, H., Hadek, A., Ajana, S., Bakkali, S., & Faraj, K. (2019, April)	11	26
Yasin, M. M., Gomes, C. F., & Koubida, S. (2015)	9	18
Makdoun, I., Mezzour, G., Carley, K. M., & Kassou, I. (2018, August)	8	17
Akhajam (2019)	8	15
Benamar, S. (2016)	6	212
Zakia, Belahmer; (2015) - 2	6	15
Chaibate, H., & Bakkali, S. (2017)	5	19
Khaouja, I., Rahhal, I., Elouali, M., Mezzour, G., Kassou, I., & Carley, K. M. (2018,	5	15
Kissani, I., & Boudihaj, A. (2019, April)	5	11
Sultana, Ronald G.; (2017) - 8	5	461
El Hamdi, S., Abouabdellah, A., & Oudani, M. (2019, June)	3	9
Bahmad, Jamal; (2020) - 1	3	15
Bouziane, Abdelmajid;Elaasri, Rachid; (2019) - 4	3	20
El Hamdi, Sarah;Abouabdellah, Abdellah;Oudani, Mustapha; (2018) - 11	3	10

Importing references and PDFs into EndNote and exporting them into NVivo was considered useful in this process (Houghton et al., 2017) and in the writing of this systematic review. EndNote helped export existing libraries (with attached PDFs) into NVivo so that the bibliographic data was also included. NVivo was then used to search each of the 20 selected texts in one go for a particular word (or related words), code passages of text to analyze them together, graphically explore the most used terms and much more. In so doing, the data analysis followed the six steps identified in Table 4.

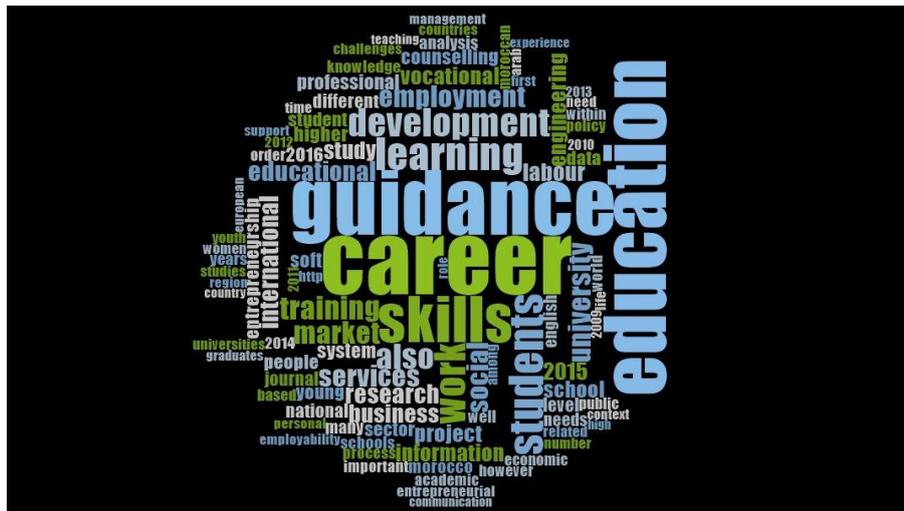
**Table 4.** Data Analysis Main Steps

1. Conduct data cleansing
2. Upload data into NVivo
3. Reorganize data
4. Conduct data exploration ( <i>using "Query" command</i> )
5. Coding of relevant information in the data
6. Generate themes to address the review question

The data gathered were analyzed using NVivo, which helped to arrange the data, as well as to identify the links and connections. The coding and sub-coding were applied according to the study's review question [*Why is there a rupture between academia and business with regards to soft skills development in Morocco?*] and the literature review. In using NVivo, the data was able to be suitably arranged, and helped to generate frameworks among the themes. The data were explored using Coding Queries. The analysis then shifted from focusing on the text to analyzing the codes, and then the relationships between them. The researcher experimented with initial codes in the Word Cloud and converted them into

codes so as to get a quick feel for the kinds of areas covered. Using Word Cloud can provide some quick hints about how to refine an initial broad code into nodes (see Figure 2). In this case, a relationship appeared to exist between career skills, career guidance, soft skills, training, and soft skills development. The Word Cloud illustrated in Figure 2 shows the most relevant keywords. Based on the strategy of coding and queries, the main emerging nodes were identified as the *omnipresence of a soft skills gap, extreme importance of soft skills, top soft skills list, and case for collaboration.*

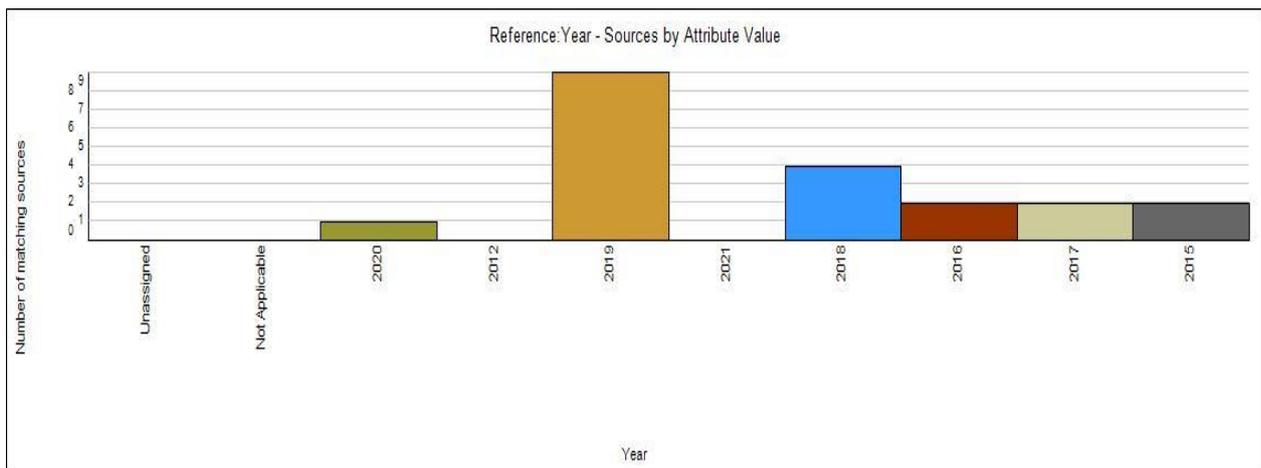
Figure 2. Word Cloud

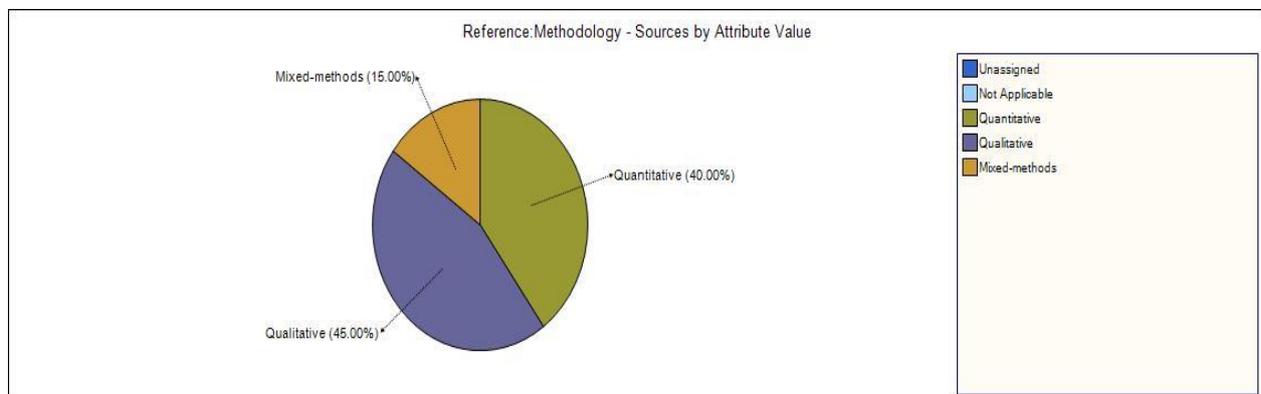
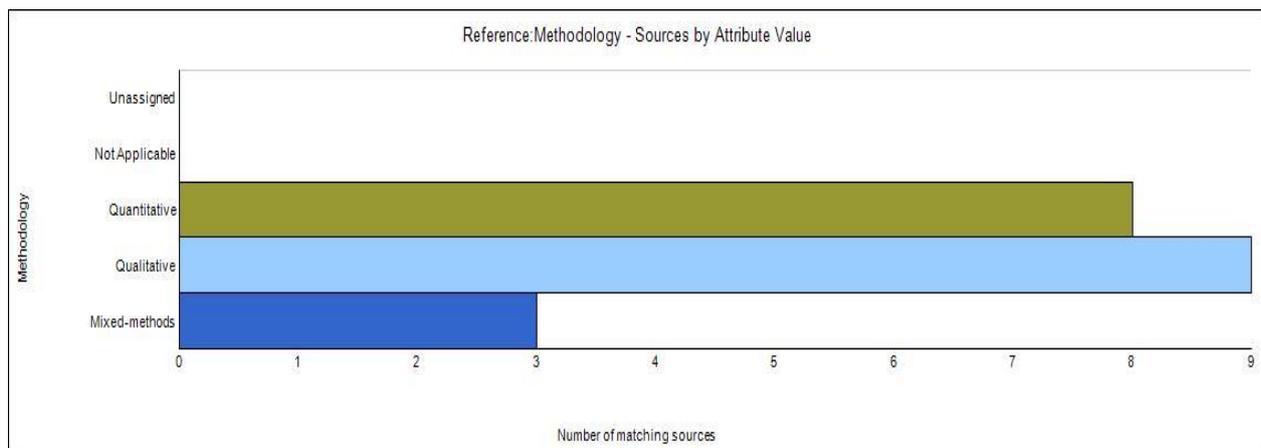
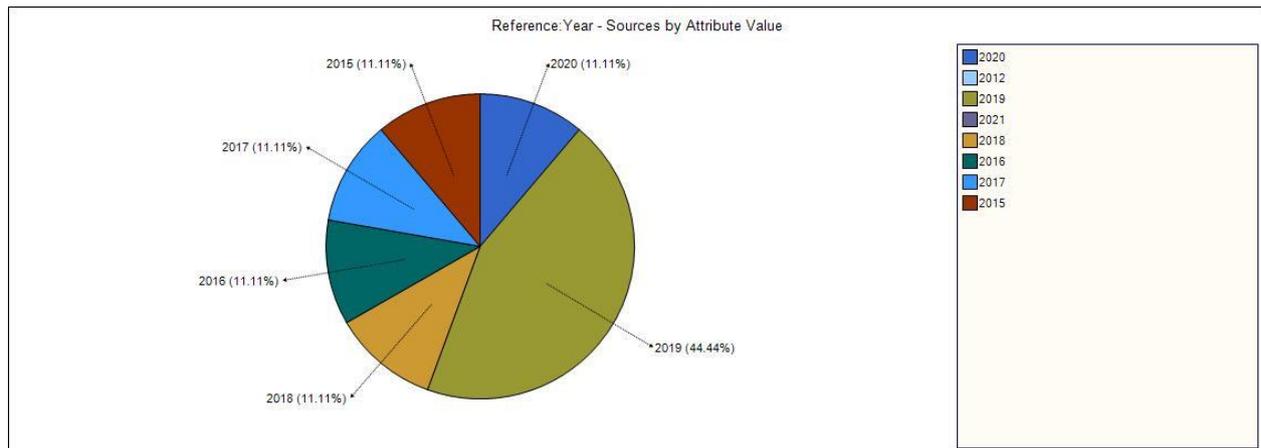


#### 4. RESULTS AND DISCUSSION

The first result identified the relationship between the studies and the types of research conducted based on year of publication (see Figure 3). Most of the studies on the topic were published in 2019 with a plurality of 45%, and 44.4% of the publications ( $n = 9$ ) adopted a qualitative research design.

Figure 3. Research by year, type, and methodology





The study results confirm the heterogeneity of the data<sup>1</sup>. It can be concluded, therefore, that a) the studies included different research types and designs (conceptual, theoretical, framework, model, and empirical), b) targeted different populations and stakeholders (sectors), and c) engendered different outcomes (implications and recommendations).

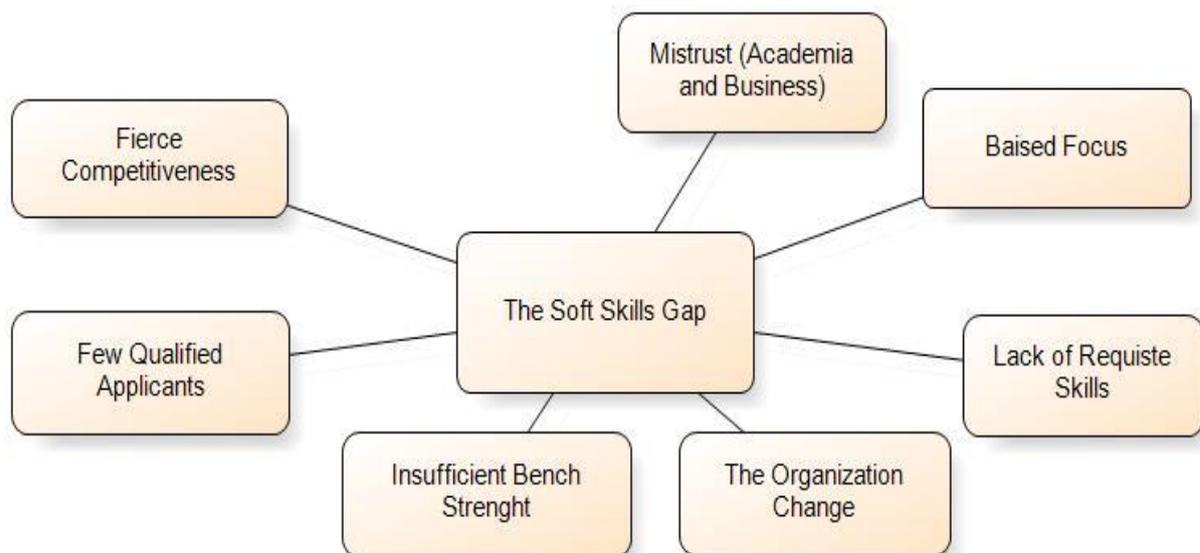
#### *Theme 1: Omnipresence of a Soft Skills Gap*

The publications ( $N = 20$ ) accentuated the omnipresence of the soft skills gap (mismatch) between academia and business (see Figure 4). This soft skills gap is attributed to different factors [mistrust between academia and business, biased focus (hard skills), lack of

<sup>1</sup> Heterogeneity is defined as any variability seen across the included studies. For example, heterogeneity may derive from differences in study designs, populations, and outcomes. If significant heterogeneity exists between the included studies, meta-analysis should not be considered.

requisite skills, the exigencies of the modern workplace, insufficient bench strength (exemplary models), too few qualified applicants interviewed, and fierce competitiveness between companies to hire workers with strong soft skills]. The studies argue that Moroccan job applicants and employees are not considered workplace-ready (Chbani & Jaouane, 2017; El Hamdi et al., 2020; Elmouhtarim, 2018; Zakia, 2015), that they lack many of the required soft skills which detract from the productivity and competitiveness of the industry they belong to. The studies foretell that unemployment [in Morocco] will persist due to the dissociation between university entrepreneurship and skills of its graduates and the demands of today's professional market. The authors speculate that under that the status quo, whilst university graduates may achieve the required academic standards, they lack the entrepreneurial attributes to be viably employable and considered workplace-ready. The graduates are not well prepared for professional life, and know little about how companies operate (Bouziane & Elaasri, 2019). Collectively, the authors consistently noted that the human aspect is a key factor in the new economy. Therefore, Morocco should face up to the challenge that the skills required for industrial employees for Industry 4.0 are currently rarely present in today's graduates (El Hamdi et al., 2018).

**Figure 4.** Soft Skills Gap

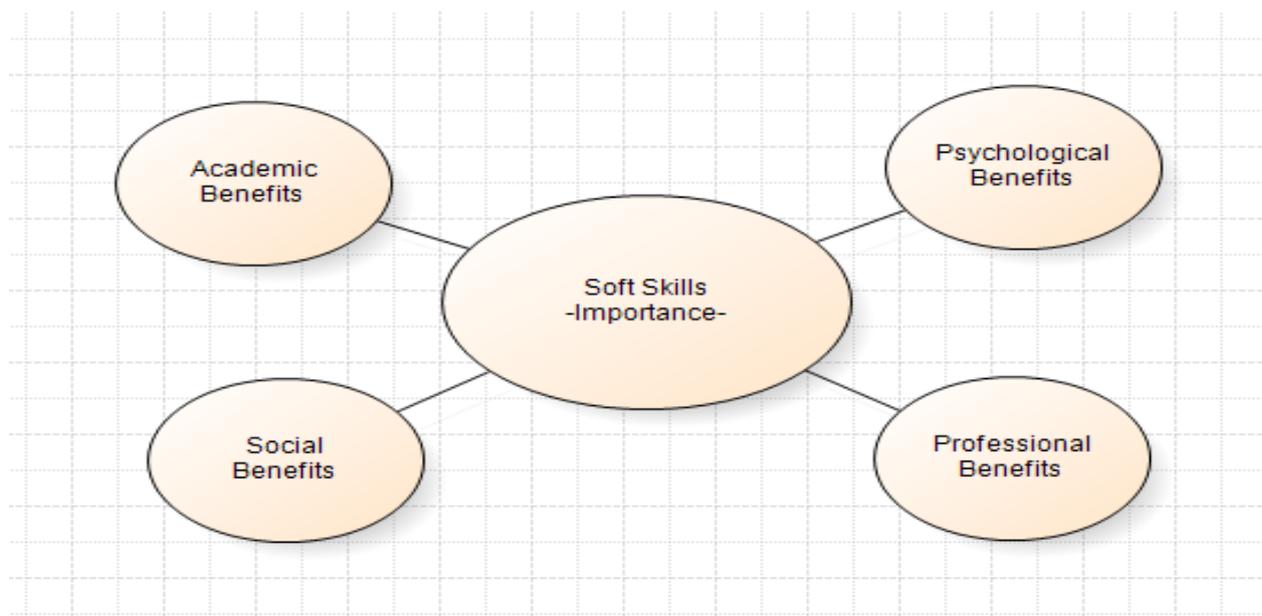


### *Theme 2: The Extreme Importance of Soft Skills*

The 20 reviewed articles placed considerable emphasis on the importance of soft skills in today's workplace (see Figure 5). The studies exhorted that soft skills are important from a variety of different perspectives [psychologically, socially, academically, and professionally]. Many stakeholders upheld that a strong correlation exists between soft skills and performance in the workplace (Chaibate & Bakkali, 2017; Chaibate et al., 2019). Soft skills help employees to handle interpersonal relations, make appropriate decisions, and communicate effectively in various settings. These skills help secure that a good impression and impact is made within the workplace. The studies remark that although important, very few students and employees invest sufficient time and effort to develop and acquire these skills (Bahmad, 2020; Bouziane & Elaasri, 2019; El Hamdi et al., 2020; Tejan & Sabil, 2019; Zakia, 2015).

Notably, the studies made it clear that Moroccan employers are generally unsatisfied with university graduates. They often criticize university output for having crammed graduates' heads with theories, concepts, and principles, yet totally lacking in soft skills. Many authors reported that Moroccan graduates are often ill-equipped to deal with real-life situations. Many weaknesses of recruits [engineers] were identified, namely in areas such as communication, autonomy, decision making, efficiency, management of priorities, teamwork, stress management, self-confidence, creativity, initiative, and negotiation skills (Chaibate & Bakkali, 2017; Chaibate et al., 2019). Academic programs in universities and engineering schools predominantly focus on technical skills, and lack sufficient emphasis on managerial or soft skills (Bouziane & Elaasri, 2019). Soft skills are considered crucial for candidates in today's job market (Khaouja et al., 2019).

**Figure 5.** Importance of Soft Skills



### *Theme 3: What Are the Top Soft Skills?*

Most studies coalesced approximately around the same list of soft skills that were deemed missing from applicants and employees' profiles. The publications placed much emphasis on the need for communication skills, creative problem solving, teamwork, adaptability, decision-making, leadership, and work ethics (see Figure 6). The authors emphasized the area of effective communication, with verbal, non-verbal, and written communication skills being very much required by employers across various sectors (Chbani & Jaouane, 2017; El Hamdi et al., 2020; El Mellouki, 2015; Elmouhtarim, 2018; Tejan & Sabil, 2019; Zakia, 2015). Alongside communication, employers placed the accent on teamwork skills, the ability to demonstrate leadership, and collaborative working skills. The studies stated that applicants lack skills in problem solving and critical thinking, which has been observed in professional practices and performance. It was reported that new graduates and employees were unable to effectively solve problems.

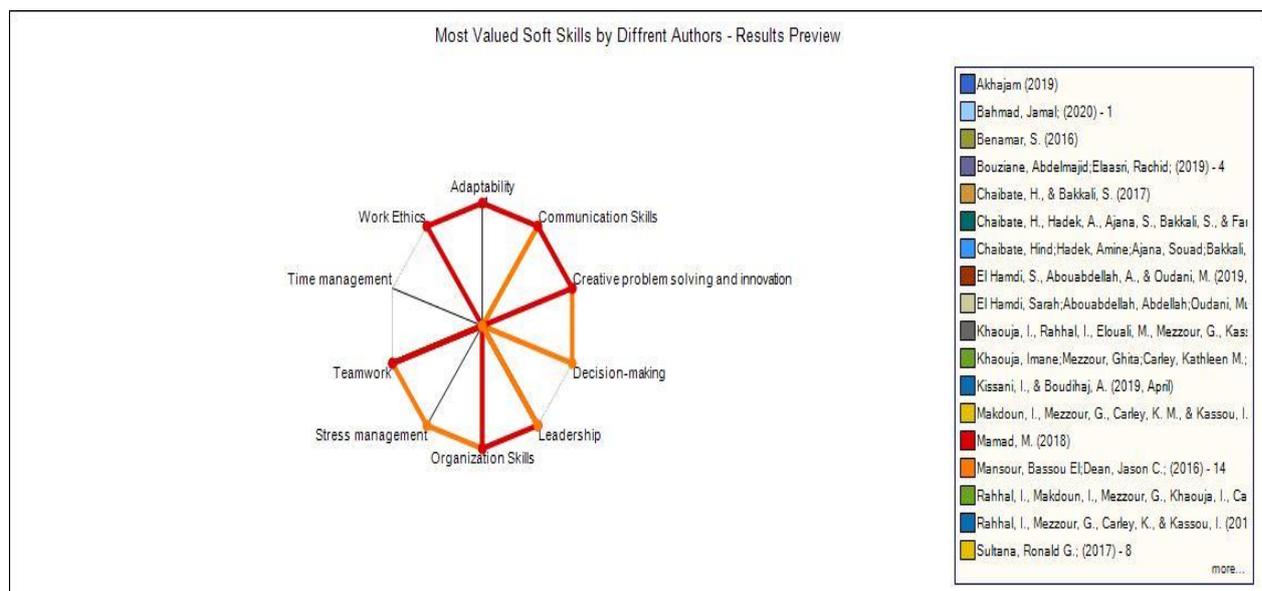
The authors also divulged that a deficiency exists in terms of leadership skills. New entry-level employees were said to not easily team up in order to achieve planned goals through the combined use of less time, effort, and professionalism. The studies warned that in the absence of leadership, the odds are that team spirit weakens, negatively impacting on

engagement, motivation, and performance within the workplace. In the same vein, creativity is one of the most required skills in many Moroccan businesses, with companies on the lookout for applicants and employees who have the ability and acuity to discover new ways and perspectives to resolve existing problems and obstacles.

Lastly, most of the studies stressed the area of work ethics. In harmony with the employers' narratives, these skills are of paramount importance in order to retain and restore corporate integrity. These skills help to maintain a professional stance towards basic work ethics, notably punctuality, attendance, meeting deadlines, positive attitudes towards tasks, hard work, and lifelong learning.

The studies suggested that higher education institutions help students build upon the required list of soft skills. The study results reveal that efficiency, initiative, and autonomy were noted as the most needed personal skills in the engineering sector, and that 92% of professionals interviewed considered that soft skills are of significant importance for engineering graduates in Morocco (Chaibate et al., 2019). In the context of increased job market competitiveness, soft skills have become as important as technical skills in terms of assessing employability (Chaibate & Bakkali, 2017). University students need to be equipped with critical thinking skills ranging from interpretation, understanding information through logical reasoning and analysis, seeing things from different perspectives, and problem-solving prior to evaluating information and making decisions (Elmouhtarim, 2018). The scholars mentioned that different soft skills are needed according to different sectors of the market, and that they are therefore context-bound. Take banking, for example, where the soft skills required are teamwork, commercial acuity, communication and analytical skills, whilst in education and teaching the focus is significantly based on communication skills as being the most requested. The focus in the field of medicine is entirely different, with teamwork and accountability being the most mentioned. However, in justice, applicants' need to work within teams whilst also demonstrating independence, as well as rigor and analytical skills being considered of importance. Yet, in the area of call centers, applicants require strong motivation, commercial skills, and predominantly a high level of communication skills (Khaouja et al., 2019).

**Figure 6.** Most On-demand Soft Skills

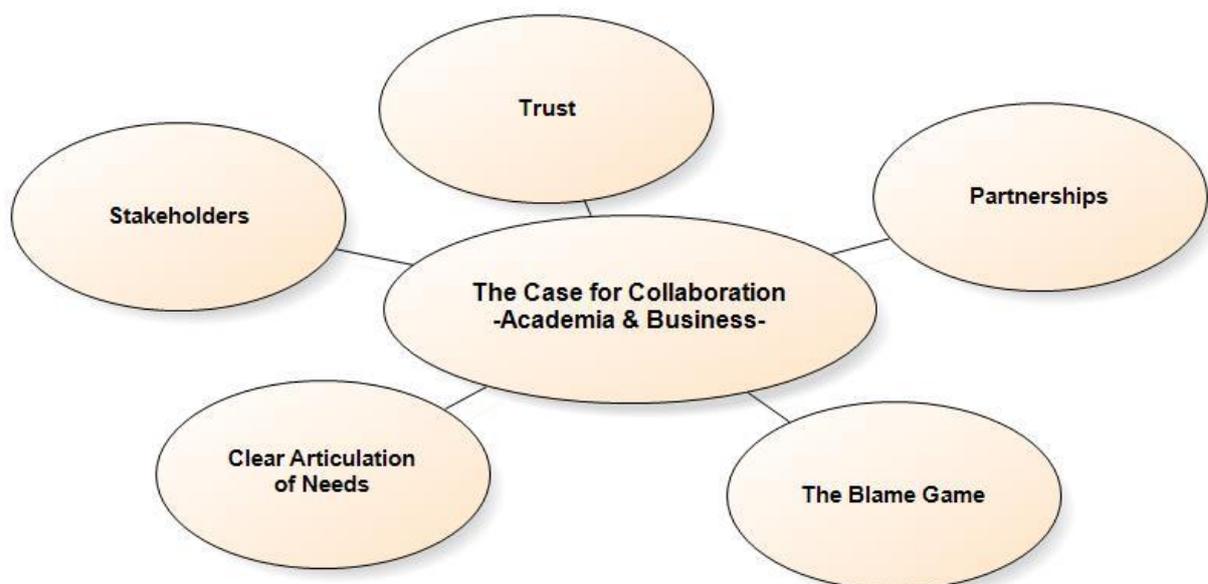


#### Theme 4: The Case for Collaboration

Various authors speculated that the current approach of waiting to bridge an employee's skills gap "on the job" is both too costly and comes too late. They hypothesized that in order to create a reliable talent pipeline, Moroccan businesses have to work hand-in-hand with universities. The publications underscored an "urgent need for clarity" along with "coherent, clear messaging" about which specific [soft] skills a given university program is meant to strengthen. In this regard, collaboration [between academia and business] can help bridge the soft skills gap. Evidence tells that bridging the soft skills gap requires a new wave of local collaboration between stakeholders in the business and the education sector through which to deliver in-context community-based solutions. In so doing, the authors pointed out that stakeholders should seek to rebuild or restore trust, seek out, strengthen and sustain partnerships, stop the blame game, provide clear articulation of needs, and involve all stakeholders [concerned parties] in the required dialogue on an ongoing basis (see Figure 7).

The studies observed that the benefits of resolving the soft skills gap through collaboration between the business and education sectors exemplify the concept of creating shared value. The studies showed that the development of an individual's [be it a university student or an employee] knowledge, skills, and attitudes are not just the sole responsibility of the academic community, but a joint responsibility of students, universities, and the industrial sector as a whole. It was stated that academic institutions could help through bolstering the process of designing curricula aimed at meeting the needs of today's industry, and suggested that any revision must include consultation and the participation of industry partners. On this, Vision 2030 pays specific attention to the area of collaboration between academia and business with regards to career education and guidance (Chbani & Jaouane, 2017).

**Figure 7.** Collaboration between Academia and Business



## 5. CONCLUSION

Businesses, educators, and workers should all be working together with a shared purpose; to bridge the soft skills gap. The literature on the topic postulates that soft skills are what make hard skills actually work! Soft Skills can bridge the gap between what is being taught in the higher education classroom and what industry actually requires in the workplace. Now more than ever, in this age of technology, Moroccan employers [in various sectors] are demanding much more than the standard degree [hard skills] from its new employees. Put bluntly, soft skills matter now and will always matter in the [future] workplace as they allow organizations to effectively and efficiently make use of employees' technical skills and knowledge in the face of significant uncertainty and massive disruptive changes in the industrial sector and thereby in the current and future jobs market.

## 6. SUGGESTIONS

A number of implications arise from the findings of this systematic review. The current study provided a comprehensive account to the main stakeholders of the soft skills gap in the Moroccan context. The study thereby contributed to the existing pool of knowledge on soft skills development in the Moroccan context, indicating the ever-presence of a soft skills gap which manifests as a rupture between academia and today's industry. The results of the study will be of significant help predominantly to researchers, stakeholders, and educators. It is hoped that Moroccan stakeholders, now have a clearer idea about the concept of soft skills and their importance to the corporate and industrial world in which we live. The results may also provide university teachers with a perspective on applicants' and employees' readiness and expectations from a soft skills development syllabus. Finally, the study may greatly assist researchers and academics in exploring soft skills through education interventions. Adopting a systematic review approach, the study stressed that the problem [the rupture between academia and business] can be resolved from the bottom up [through collaboration], rather than new demands being pushed down from the top. University students, faculty members, and stakeholders should all be involved in determining the soft skill set needed in the employees of the future. To reiterate, the past was HARD, the present is SOFT, and the future will be SOFTER.

## DECLARATIONS

**Conflicts of Interest** The author declared no conflict of interest.

**Ethical Approval** No ethical approval was sought due to the specific nature of the study [A Systematic review].

**Funding** None.

**Data Availability Statement:** The data that support the results of this study are available from the corresponding author upon request. The data are not publicly available due to privacy or ethical restrictions.

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