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JULIAN LEHMANN

EUROPEAN BUSINESS SCHOOLS AND GLOBAL LEADERSHIP:

AN EXAMINATION OF THE ADMISSION CRITERIA OF THE EUROPEAN MASTER
IN MANAGEMENT PROGRAMS RANKED BY THE FINANCIAL TIMES 2010

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> Dissertação apresentada à Escola de Administração de Empresas de São Paulo da Fundação Getulio Vargas como requisito para obtenção do título de Mestre Profissional em Gestão Internacional

> Campo do conhecimento: Recursos Humanos

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Banca examinadora:

_____

Prof. Dr. Isabela Baleeiro Curado (Orientadora)
FGV-EAESP

_____

Prof. Dr. Tales Andreassi
FGV-EAESP

_____

Heloisa Mônaco dos Santos
HMS Consultoria Ltda.

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RESUMO

O aumento de empresas que operam internacionalmente requer o desenvolvimento de líderes mundiais para colocar as estratégias em prática. Embora este processo de desenvolvimento é importante para o mundo corporativo, muitos futuros executivos são graduados de escolas de administração de empresas que estão intimamente ligados ao mundo de negócios e, portanto, desempenhão um papel importante no processo. Esta pesquisa examina se os programas europeus "Master in Management" classificado pelo Financial Times em 2010 selecionam aqueles candidatos que são mais adequados para o desenvolvimento de liderança global. Portanto, três anteriores meta-estudos são sintetizados para produzir um perfil de competências classificadas de um líder global. Então, informações sobre os critérios de admissão dos programas de mestrado são coletadas e comparadas com este perfil. Os resultados mostram que seis competências são medidas por mais da metade dos programas: proficiência em Inglês, capacidade analítica (racionamento lógico e quantitativo), capacidade de comunicação, conhecimento do negócio global, determinação para alcançar, motivação e capacidade interpessoal. Além disso, as habilidades operacionais requerentes pelos líderes globais não são significativas no processo de admissão e o foco é sobre as habilidades analíticas. Comparação dos resultados com o perfil anteriormente desenvolvido abrangente indica que uma quantidade significativa de programas pode subestimar o significado de habilidades pessoais e características para o desenvolvimento de líderes globais.

Palavras-chave: Liderança, Escolas de administração de empresas, Executivos, Seleção e admissão.

ABSTRACT

The increase of internationally operating companies requires the development of global leaders to put strategies into practice. Although this development process is important to the corporate world, many future executives are graduates from top business schools which are closely linked to the business world and therefore play an important role in the process. This research examines whether the top European "Master in Management" programs ranked by Financial Times in 2010 select those candidates that are best suited for global leadership development. Therefore, three previous meta-studies are synthesized to yield a profile of categorized competencies of a global leader. Then, information on admission criteria of the master programs is gathered and compared to this profile. Results show that six competencies are measured by more than half of the programs: English language proficiency, analytical ability (logical reasoning and quantitative), communication ability, global business knowledge, determination to achieve, motivation/drive and interpersonal ability. Furthermore, applicant skills are non-significant in the admission process and focus is on the analytical abilities. Comparison of the results to the previously developed comprehensive profile of a global leader indicates that a significant amount of programs might underestimate the meaning of personal abilities and traits for the development of global leaders.

Keywords: Global leadership, European business schools, master in management, admission criteria, KSAO competency model, threshold competencies, personality traits

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TABLE OF ABBREVIATIONS AND ACRONYMS

CEO	Chief executive officer
CFSM	Competency model of cognitive, functional, social and meta competencies
CV	Curriculum vitae, résumé
ECTS	European credit transfer system
EFMD	European fund for management development
EQUIS	European quality improvement system
FFM	Five factor model for personality analysis
FT	Financial times magazine
GLD	Global leadership development
GMAT	General management admission test
GPA	Grade point average
GRE	Graduate record examination
HR	Human resource(s)
HRM	Human resource management
IDC	Internet data collection
ION	International organization network
KSAO	Competency model of knowledge, skills, abilities and personality traits
MA	Master of Arts
MBA	Master in business administration
MiM	Master in management
MSc	Master of Science
PhD	Philosophiae doctor (doctor of philosophy)
Tage-Mage	Test d'aptitude aux études supérieures de gestion (aptitude test for graduate management studies)
TOEFL	Test of English as a foreign language

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1.   INTRODUCTION

The development of global leadership as a critical success factor of internationally operating companies has been widely recognized by scholars (Caligiuri & Di Santo, 2001; Evans, Pucik, & Barsoux, 2002; Bartlett & Ghoshal, 1992; Conner, 2000; Gregresen, Morrison, & Mendenhall, 2000; Morrison, 2000). Companies face an increasing shortage of global leaders (Gregersen, Morrison, & Black, 1998) that ultimately leads to lower bottom-line results (Stroh & Caligiuri, 1998). As a result, global leadership development (GLD) has become an important human resource issue.

Consequently, scholars have engaged in a new research agenda and a new stream of literature around the terms of global leadership, global managers and global mindset has evolved, addressing the question of developing managers that are able to address global as well as domestic leadership competencies. Most research on global leadership focused on the corporate world, particularly in the area of expatriation or international assignment management (Black, Morrison, & Gregersen, 1999; Suutari, 2002; Stroh & Caligiuri, 1998; Osland, Bird, Mendenhall, & Osland, 2007). The corporate world however is not the starting point of GLD. This paper looks at one important brick in the wall of GLD, namely the top European business schools. Indeed, many top business schools produce a significant number of future executives in internationally operating companies (MINES ParisTech, 2011).

Generally, there is an imperative dynamic process between business schools and their stakeholders to design and adapt their programs. Already the name "business school" or "school of management" suggests the desired similarity of these institutions with actual businesses and many practical elements are an integral part of the curriculum. The underlying idea is that the more the needs of businesses are incorporated in the graduate requirements, the higher the "employability" and the job success of the graduates, a key factor in the business model of business schools. This results in a causal connection between the needs of the business world and the profile of the graduate of business school programs. Even though by design, business school education will always, to a certain degree, lag behind the actual needs of the ever changing business world, its programs are designed and adapted according to the needs of businesses and graduate profiles are accordingly redefined. The business schools then translate the profile into competencies that the graduate should possess. The

desired graduate profile can be understood as a promise to the companies that this person possesses the competencies necessary to effectively carry out the required tasks and grow into the role of a global leader.

Looking at our concrete case of global leadership development, the increased need of global leaders puts their development on the agenda of business schools, too. To achieve this, business schools generally have two levers they can and should use:

1. Selecting those students that have the greatest potential to possess the desired global leadership competencies by the end of the program (develop and adapt selection processes to find suitable candidates)
2. Providing the education to make them reach this potential (develop and adapt education methods)
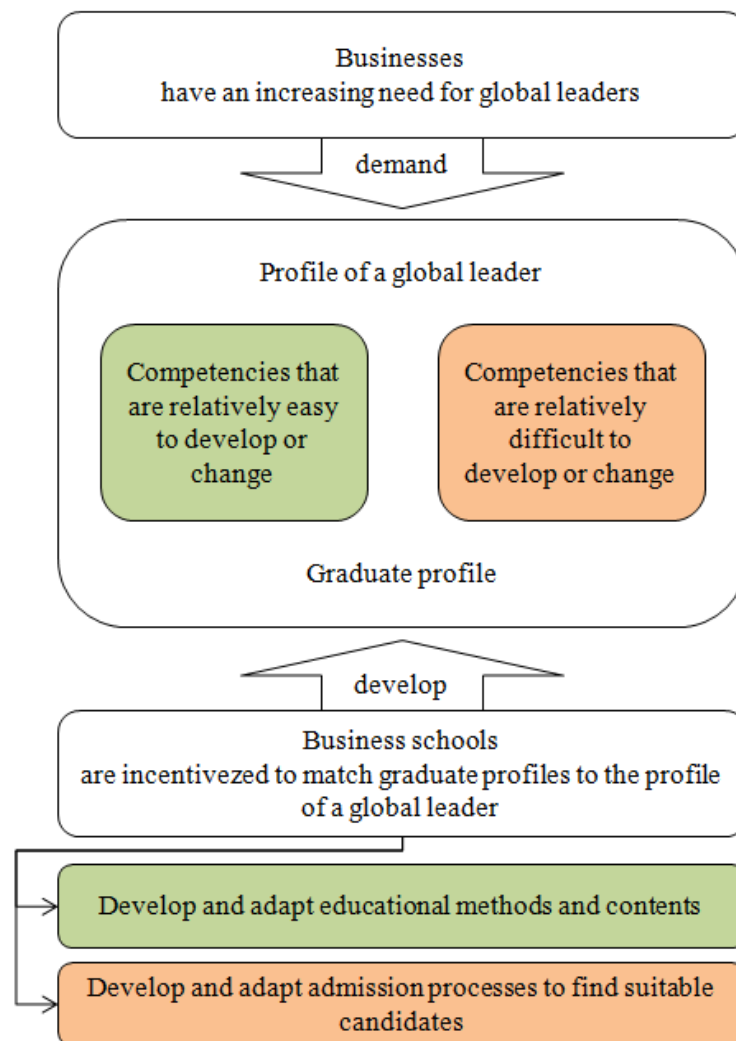
Figure 1: Interdependence of competency models between business schools and businesses

This two-fold action imperative for the business schools is what Caligiuri refers to as "providing the right people with the right development opportunities will produce effective global leaders" (Caligiuri, 2006). This causal connection of businesses and business schools is depicted in Figure 1. Furthermore, it is important to take into account the constraints the competency development process faces (e.g. program duration and competency mutability).

This research examined the second lever, namely the admission processes to find suitable candidates. It did **not** examine the educational methods used by business schools for GLD. Furthermore, it focused exclusively on top programs in Europe, namely the European Master

in Management (MiM) programs[1]. These MiM programs were created after the so-called Bologna process of harmonization of the European higher education systems. Ensuring a high international visibility and profile, only those programs were considered that were ranked in the Financial Times (FT), an important visible indicator for potential applicants. According to the European Quality Improvement System (EQUIS), these schools should demonstrate successful preparation for "potential careers in international management" (EQUIS, 2011) which formally makes them relevant for GLD. EQUIS is an organization that is part of the European Foundation for Management Development (EFMD), awarding accreditation for those business schools that fulfill certain stipulated standards and pay the accreditation fee. It was founded during the time of the harmonization of the European higher education systems that also affected management education. More details on the MiM programs are given in the sample description in sections 3.1 and 3.2.

More concretely, this research examined how these business schools select their students for the MiM programs and how the criteria in this admission process compare to the profile of a global leader defined in the literature. In particular, it is interesting to examine admission processes taking into account the feasibility for business schools to alter the competency model of a student. Which competencies are desired from a graduate and to what extent can business schools provide the education to develop or change them? If this process is difficult, what follows for admission processes? Admission offices require effective processes in particular for international students who come from other countries with less known educational systems. Considering the rising number of international graduate school applicants over the last years (BBC, 2011), effective admission processes becomes more and more important.

Past research on selection processes had a different focus. It mostly analyzed to what extent certain admission criteria predict study success (Carver Jr. & King, 1994; Deckro & Woundenberg, 1977; Shapiro & Gould, 1980). However, study success in this context is mostly identified as graduate grade point average (GPA). In this thesis, the notion of study success is **not** considered. The focus is on the selection process in a more practical sense - defined as matching the profile of a "global leader". Furthermore, past literature examined selection processes deals with Master in Business Administration (MBA) programs in the United States. Although many times modeled after the American MBAs to a certain extent,

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[1] Although having slightly different names, all examined master programs are in the "Masters in Management" ranking of Financial Times and will be accordingly referred to

European master in management (MiM) programs have very different characteristics as well as the applicants have different profiles from the typical MBA applicants in the United States. As a result, this paper presents an important addition to the present literature.

As Suutari (2002) stated in his research overview, there is still much work to be done on many aspects of global leadership. This paper addresses an important factor of global leadership development and provides many practical insights.

- For businesses, an improved selection process of top business schools will result in better managers and therefore better bottom-line results (Stroh & Caligiuri, 1998).
- For students, it will provide a guideline of what characteristics they will be assessed on during the admission process. Unfortunately, today this process can mostly be seen as an abstract black-box with little transparency. With more information provided, it becomes clearer for applicants what business schools expect from them.
- Last but not least, for business schools, it is insightful to improve the alignment of their graduate profile. The process of education can be understood like a value-chain where a clearly defined competency model of a graduate serves as guideline forward to align with current business needs and backward to adapt selection methods and educational methods.

1.1. Research objective

The research objective of this thesis is to examine one aspect of the role of top European business schools in global leadership development, namely the admission processes:

Research question: *Do the admission processes of the European MiM programs select candidates best suited for the development of global leaders?*

To be able to answer this question, this thesis will address the following questions:

- How does the concept of a global leader discussed in the literature translate into a profile with common competencies requested by the business world?
- According to the information provided on their web sites and in their brochures, do business schools envision their graduates to be global leaders?

- Given the constraints of educational programs to develop competencies, what role does the admission process play?
- How do the admission criteria for the European MiM programs compare to the profile of a global leader defined from literature?

1.2. Project design & chapter outline

After this introduction, the second chapter provides a literature review of the relevant concepts, namely competency models and global leadership. In the conclusion, a synthesized competency model of a global leader is given.

The third chapter describes the studied sample of European business school master programs and depicts the two ways of data collection used to gather information on competencies assessed in the admission processes.

The fourth chapter gives an overview of the results and outcomes of the research in the previous chapter.

The fifth chapter describes first the limitations of this research and the particularities of the chosen setup. Then, it compares the results of the previous chapter, namely the competencies relevant for admission, to the synthesized competency model required by a global leader that was established in the literature review. Consistencies and differences of theory and empirical research are discussed and conclusions are drawn.

2. GLOBAL LEADERSHIP COMPETENCIES

This chapter identifies the attributes or characteristics a global leader should have according to previous research in the field. This is done by using the framework of the competency[2] model of a global leader. As a result, the last section of this chapter defines the *profile* of a global leader that can be compared to admission criteria in practice at a later stage. In this respect, it is important to understand what a competency model of a global leader is. The following methodology is used:

First, the definition of competencies is discussed, along with their classification into a competency model used throughout this thesis. This model is compared to other competency models proposed by scholars and institutions, discussing similarities and differences. Finally, the improvability of the chosen competency model is discussed.

Second, the definition of a global leader is discussed and distinguished from similar concepts like global managers or domestic leaders. The impact of globalization on the required competencies is discussed and some common tasks are identified.

Third, a review of global leadership competencies is provided, mainly drawing from four sources: a study that draws global leadership competencies from the above mentioned tasks of a global leader, two meta-studies that are based on a thorough literature review on global leadership competencies and a meta-study on global mindset.

Fourth, the results are synthesized and framed into a synthesized competency model suitable for this research.

Later, in chapter 5, these competencies are compared to the admission criteria found to be used by the European business schools for their flagship MiM programs.

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[2] Although different definitions have been proposed, the terms "competence" and "competency" are often used interchangeably in the literature

2.1. Competencies and competency models

This section provides a literature review of competency models and introduces the KSAO competency model that is used throughout this thesis. It is compared to other competency models proposed by scholars and institutions, discussing similarities and differences. One of them is the competency model described in the EQUIS documentation, which over 80% of the examined business schools in the sample had to address in the process of obtaining EQUIS accreditation. Finally, the improvability of the KSAO competency model is discussed, mostly drawing from Caligiuri's findings.

2.1.1. Competency model definitions

The concept of competences has its roots in Psychology and was later applied to business needs. According to Cardy and Selvarajan, the concept can be traced back to McClelland who uses the term as a "symbol for an alternative approach to traditional intelligence testing" (McClelland, 1973). He proposed looking at skill sets to evaluate performance. Boyatzis then popularized it in *The Competent Manager*, defining it as "an underlying characteristic of a person" that could be a "motive, trait, skill, aspect of one's self-image or social role, or a body of knowledge which he or she uses" (Boyatzis, 1982). Woodruffe defined competency as "the set of behavior patterns that the incumbent needs to bring to a position in order to perform its tasks and functions with competence" (Woodruffe, 1992). This definition includes three main observations: first, a competence is connected to an observable behavior; second, this behavioral pattern is connected to job performance and third the concept of competency includes the traditional knowledge, skills and abilities (KSA), but also goes beyond these characteristics. This is also why the term competency model itself might actually be misleading since it contains "other" (O) factors that are sometimes not referred to as competencies, such as values and personality traits. (Cardy & Selvarajan, 2006).

Today, most literature uses this KSAO definition of competencies as a connected set of knowledge, skills, abilities and other characteristics (KSAO) that an individual needs for effective performance in a certain job (Fleishman & Quaintance, 1984; Fleishman & Reilly, 1992; Schippmann, et al., 2000; Spencer & Spencer, 1993).
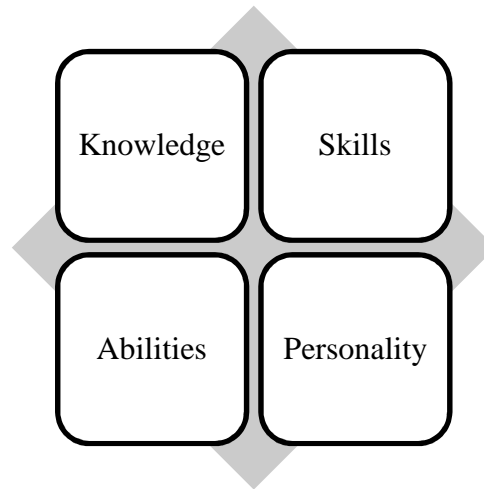
Figure 2: KSAO competency model, Spencer & Spencer (1993)

- **Knowledge** refers to job relevant *information* related to a given content-domain. In our context, the domain is global business expertise.
- **Skills** refer to job relevant *experience*, namely "practiced acts" (Landy & Conte, 2004).
- **Abilities** generally can be grouped into four classifications: cognitive (knowing), physical (doing), perceptual (sensing) and psychomotor (coordination of sensing & doing) attributes.

  In our context they will only refer to cognitive abilities like oral and written comprehension and expression, originality, memorization, problem sensitivity, mathematical reasoning, number facility, deductive and inductive reasoning, information ordering, category flexibility, etc. (Fleishman & Quaintance, 1984; Fleishman & Reilly, 1992)
- Other refers to the **personality characteristics and values** that are likely to underlie the ability to effectively complete a task.

Similarly, EQUIS accreditation standards oblige business schools to define target profiles of graduates. The "EQUIS documentation: Standards and Criteria" defines "target profiles and criteria for selection" in the dimensions "knowledge, values, managerial skills, professional competences and entry level into corporate employment" (EQUIS, 2011). This can be understood as a competency model and shows significant intersections with the KSAO model.

Knowledge and managerial skills/professional competencies are present in both models. Bassi and Russ-Eft divide personality traits as being *respondent* or *operant*. According to Kmieciak, a value is a guideline, which selectively organizes and accentuates the input system of a person (perception) as well as regulates its output (behavior) (Kmieciak, 1976). It therefore can be classified as a respondent trait. Operant traits on the other hand are "intrinsic drives to act in the absence of environmental pressures or rewards" (Bassi & Russ-Eft, 1997). Hence, values refer to the personality and therefore also can be found in the KSAO model. Finally, "entry level in corporate employment" refers to professional experience. In the conceptualization used in this thesis, this can be understood as an enhancer for the other factors without having an intrinsic competency. Altogether, a strong matching of the KSAO and EQUIS competency model can be observed. Since more than 80% of the business schools in the sample have EQUIS accreditation, this shows the validity of the KSAO framework in our context.

Bassi and Russ-Eft identify a similar concept with the "Iceberg of competencies" (Bassi & Russ-Eft, 1997). It consists of visible skills and knowledge (above the waterline) and invisible or underlying abilities or personality traits (below the waterline).
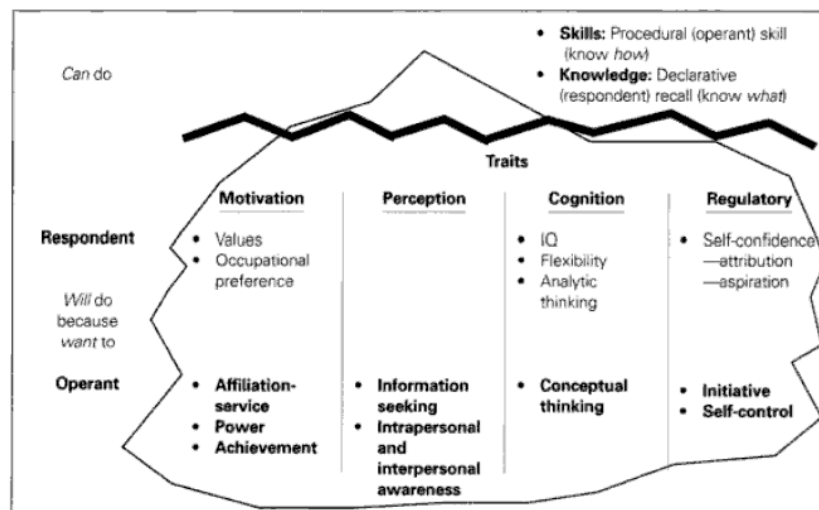
Figure 3: The Iceberg model of competencies, Bassi & Russ-Eft (1997)

Towards a holistic view of competencies, Delamare le Deist and Winterton reviewed the definitions and usages of competence in the literature of the United States, the United Kingdom, Germany and France and propose a holistic typology (Delamare le Deist & Winterton, 2005). The authors state that the competencies required for an occupation include

both conceptual (cognitive, knowledge and understanding) as well as operational (functional, psycho-motor and applied skill) competencies. The competencies required for personal effectiveness are also both conceptual (meta-competence, including learning to learn) and operational (social competence, including behaviors and attitudes). The relationship of these four dimensions is depicted in the following figure.

	Occupational	Personal
Conceptual	Cognitive competence	Meta competence
Operational	Functional competence	Social competence

Figure 4: Competency model, Delamare le Deist & Winterton (2005)

In this cognitive-functional-social-meta (CFSM) competency model, as the authors summarize, the notions of cognitive, functional and social competence are fairly in line with the French competency concept (*savoir*, *savoir faire* and *savoir être*) and the concept of KSAO described above. However, "meta-competence is rather different from the first three dimensions since it is concerned with facilitating the acquisition of the other substantive competences" (ibid.). The model can hence be depicted in the following tetrahedron.
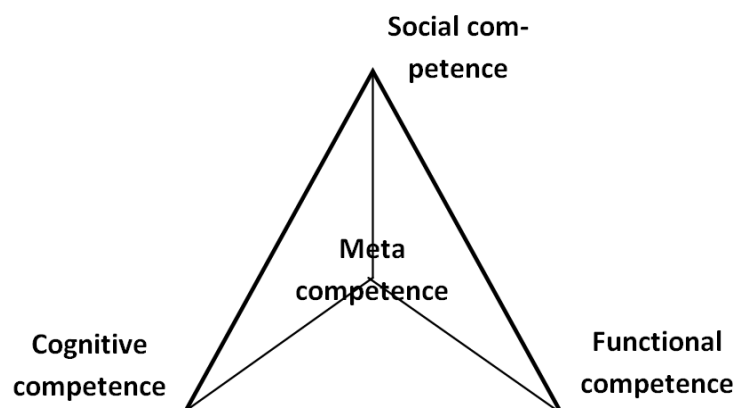
Figure 5: CFSM competency model, Delamare le Deist & Winterton (2005)

Other scholars refer to meta-competence as "mindset". Fisher defined a mindset as "differing ways that the subject at hand is perceived, understood and reasoned about" (Fisher, 1988). On this personal level this translates into 'differing ways that the subject at hand perceives understands and reasons itself'. Rhinesmith sees this as a part of "being, not a set of skills". In the KSAO model, this clearly is part of personality traits.

2.1.2. Competency model features

Hirsh and Strebler identify three features in the notion of competencies (Hirsh & Strebler, 1994):

1) A competence is seen in a context of a particular job or job role and the organization in which that job exists;
2) Competencies are positively associated with superior performance;
3) Competencies can be described in terms of specific behaviors which can be observed in the job (ibid.)

It follows that in the model, both an identification of the KSAOs as well as an assessment of the importance of each KSAO for the job in question is needed.

Competency models have many functions in businesses (Campion, Fink, Ruggeberg, Carr, Phillips, & Odman, 2011), but in our context, three key functions are important:

- **Assessment**

  Competency models can be used to distinguish between average and top performers.
- **Deductive modeling**

  Competency models start with desired outcomes. This fact links the KSAOs to the strategy of the institution.
- **Align HR systems**

  Competency models fulfill an important role as guideline for a company's coherent hiring, evaluation, training and development of the institution's HR according to the same attributes.

2.1.3. Improvability of competencies

In line with the definition that competencies are positively associated with superior performance, mutability/malleability of KSAOs translates into improvability of KSAOs. The fundamental question to what extent it is possible for humans to improve certain KSAOs belongs to the field of psychology and has profound implications for organizational behavior. Most findings just overlap with the much broader and more detailed concept of KSAOs, for example some general beliefs were mentioned whether or not people can change their basic abilities (Button, Mathieu, & Zajac, 1996), personality (Erdley, Loomis, Cain, & Dumas-Hines, 1997), intelligence (Dweck & Leggett, A social cognitive approach to motivation and personality, 1988) or morality (Dweck, Chiu, & Hong, 1995). Although it is out of the scope of this thesis to give a full overview of the topic, those findings on KSAOs improvability that are relevant for the selection process of business schools are pointed out.

Caligiuri identifies different levels of KSAOs mutability (Caligiuri, 2006). Among KSAOs, knowledge is the most changeable and can be gained through didactic training methods. Skills and abilities are mutable over time to the limits of one's nature ability, intelligence or personality. Personality characteristics are the most difficult to change. These findings are summarized in the following figure:

KSAOs	Level of mutability	Sample developmental interventions
Knowledge	Possible to develop and change	*Didactic learning opportunities:* Books Cross-cultural training courses Diversity training E-learning Language classes
Skills and abilities	Difficult to develop and change	*Experiential intervention:* Cultural immersion programs Language immersion Coaching Mentoring Attending global meetings Working on global teams
Personality characteristics	Very difficult to develop and change	*Intensive experience:* International assignments Life-changing experiences Salient non-work cultural experience (e.g., marrying a person a different culture)

Figure 6: KSAOs mutability, Caligiuri (2006)

In their sample of managers, Maurer et al. found that improvability ratings on the motivation/cognition factor were significantly lower than on the management/knowledge factor (Maurer, Wrenn, Pierce, Tross, & Collins, 2003). Furthermore Caligiuri and DiSanto

found that in contrast to knowledge, skills and abilities, personality traits did not change as the result of international assignments (Caligiuri & Di Santo, 2001). This provides support for the hypothesis that "motives and personality traits are perceived to be the most difficult to change or develop, while knowledge and skills are the easiest to change" (Maurer, Wrenn, Pierce, Tross, & Collins, 2003). Although in general, all KSAO were perceived to be changeable, this supports Caligiuri's identification of three levels of mutability. This result can also be depicted in our existing KSAOs diamond.
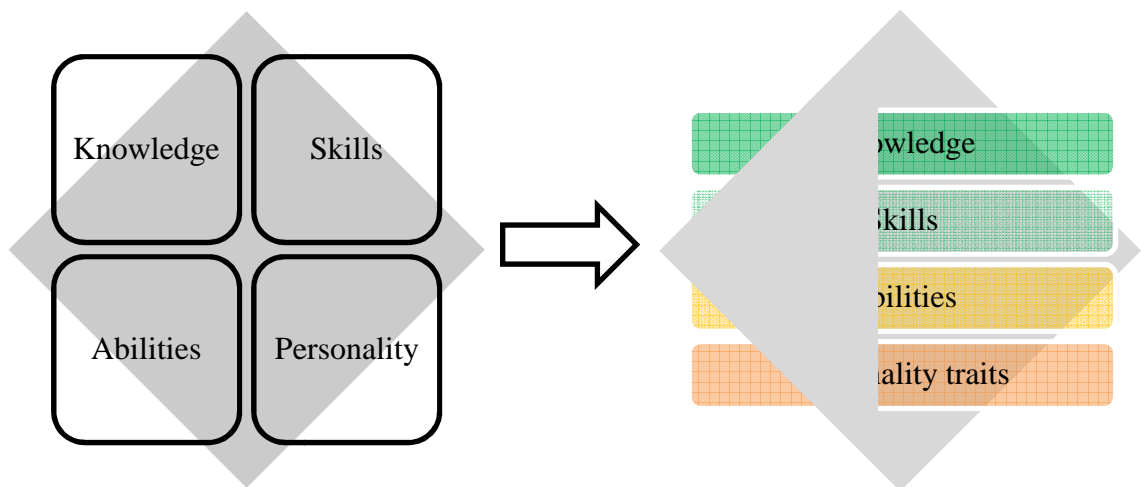
Figure 7: Improvability of the KSAO competencies, adapted from Caligiuri (2006)

2.2. Global leadership distinguished from similar concepts

As Suutari states in her overview, literature on global leadership "uses this concept with very different meanings" (Suutari, 2002) and no collectively used concept has emerged in the literature. Yet, without a clear definition of the underlying concept and a distinction from similar concepts, the selection and development of global leaders is infeasible. There are two areas of confusion: first, the distinction between management and leadership and second, the difference of global and domestic (Jokinen, 2005; Vloeberghs & Macfarlane, 2007). Even though it might seem to be splitting hairs, given the confusion in the literature, it is important to clearly define the concepts to be able to define the competencies associated with it.

2.2.1. Leadership vs. management

According to Oxford's dictionary of modern English, management is defined as "the process of dealing with or controlling things or people" or "the responsibility for and control of a company or similar organization" (Oxford Dictionaries, 2011). Similarly, a manager is defined as a "person responsible for controlling or administering all or part of a company or similar organization". On the other hand, leadership is defined as "the action of leading a group of people or an organization" and similarly a leader as a "person who leads or commands a group, organization, or country" (ibid.). Hence, leadership is defined via observable behavior and management is defined through formal position in the company. The CEO of an international company is a manager but not necessarily a leader and vice versa, the member of a team might be a leader without having many responsibilities (Kotter, 1990). Bartlett and Ghoshal were talking about the same issue when they said that "… the greatest risk […] is that companies are trying to implement third generation strategies, using second generation organizations with first generation managers" (Bartlett & Ghoshal, 1992). The difficulty is also rooted in the normative sense of the two words: in many cases, a manager is expected to have leadership competencies and vice versa, people will be given management positions if they possess leadership competencies.

Contrary to this finding, Osland et al. found that of the primary research they reviewed, most authors used the words leadership and management interchangeably, suggesting that a global leader and a global manager are indistinguishable (Osland, Bird, Mendenhall, & Osland, 2007). This suggestion is rejected and a more clear-cut use of the words by scholars according to the above mentioned definitions is recommended.

Since this paper examines the competency model and how this translates into observable behavior, it makes only sense to talk about leaders and leadership and not about managers and management.

2.2.2. Global vs. domestic

There has been confusion about the difference between (domestic) leadership and global leadership (Jokinen, 2005; Vloeberghs & Macfarlane, 2007). The notion of leadership has been around in literature for many years, so what is meant by global leadership?

Following the definition of leadership given above, the effectiveness and credibility of a leader depends on the one hand on the person's competencies but on the other hand on the organizational or social mindset. A mindset can be defined as "the established set of attitudes held by someone" (Oxford Dictionaries, 2011). Therefore, leadership is and has always been a highly contextual concept; it depends on the environment and values around it. There is no hint in the literature on global leadership that the general competency model associated with the classical concept of leadership is now obsolete regarding global leadership. On the other hand, it has been argued that leaders that are successful on the domestic level will not necessarily be successful on the global level (Jokinen, 2005). If this is true, there are competencies required in the global context that were not or less required in the domestic context. Hence, global leadership is no new concept but can be seen as the next evolutionary step of the same concept. If today's business environment changes, so changes the requirements of leaders. As Barrack Obama said in his 2011 speech in Westminster hall: "The nature of […] leadership will need to change with the times". This is why some scholars have argued that there is no difference between a manager and a global manager (Bartlett & Ghoshal, 1992) and lists of competencies of global leaders are not much different from those generally required from effective managers (Kets de Vries & Mead, 1992). This explains why the concept of leadership depends on the context of respective business practices and therefore has a long history of continuously changing definitions that contributed to a certain mystification (Bücker & Poutsma, 2010).

Consequently, since the 1990s, the term leadership experienced some discussion due to the growing impact of globalization (Morrison, 2000) which had to be accounted for in the mindset. The pressure to implement global strategies and the two perspectives associated with it caused a different understanding of leadership. Even further, the dynamics, complexity and diversity, once characteristic of a global environment, are diffusing into the domestic environment (Gregersen, Morrison, & Black, 1998). According to Oxford's dictionary for modern English, the term "global" is defined as "relating to the whole world; worldwide" or as "relating to or embracing the whole of something, or of a group of things" (Oxford Dictionaries, 2011). When talking about global leadership, most literature uses the terms "global", and "international" interchangeably, suggesting a more informal use than Bartlett and Ghoshal when they defined more formally the terms "global", "international", "multinational" and "transnational" as company strategies discussing sources of competitive

advantage (Bartlett & Ghoshal, 1989). Summarizing, in the leadership context, "global" refers to the widely accepted impact of globalization on the business environment.

Johansson identified four factors that propel companies towards globalization (Johansson, 2000):

- Markets;
- Competition;
- Cost; and
- Government (e.g. trade policies or technical standards)

These factors are also called the four major globalization drivers (Yip, 1992). As Suutari states, "through to a strategy application of contingency theory, it is argued that globalization of industry puts enormous pressure on companies to adopt global strategies" (Morrison, 2000; Suutari, 2002). In this context, two perspectives have been identified: the cultural perspective and the strategic perspective. The cultural perspective focuses on "aspects of *increased cultural diversity and cultural distance* associated with worldwide operations and markets" (Levy, Beechler, Taylor, & Boyacigiller, 2007) in reference to Perlmutter's work on cultural dimensions (Perlmutter, 1969). The strategic perspective focuses on *increased strategic complexity and dynamics* associated with worldwide operations and markets in reference to Bartlett and Ghoshal's work on international management (Bartlett & Ghoshal, 1989).

There is another important factor linked to globalization and that is the economics of technology. Technology makes globalization possible since it has decreased the average transaction costs that prevented goods/information/service exchange or trade from happening, as described in papers on the market failure of trade. On the other hand, globalization is increasingly integrating markets and tastes around the world. This method increases the size of markets for new technologies and products based on it. Globalization also results in increased collaboration on the development of new technologies and products by scientists from many countries. Technologies also develop at a very high speed that additionally increases the demand for flexibility and learning abilities.

For the HR selection processes, the impact of globalization resulted in the change from recruiting applicants that are able to perform a certain task towards recruiting applicants that have the potential to perform future tasks, where the potential refers to the applicants' competencies (Bücker & Poutsma, 2010). A key asset of HR is not only to be highly skilled

and adapt but more importantly to be able to "learn quickly, adapt to change, communicate effectively and foster interpersonal relationships" (Rodriquez, Patel, Bright, & Gregory, 2002). Mapping this back to our KSAOs model, a relative increase in the importance of the abilities and personality traits should be observed. As seen above, these are the factors that require much effort and time to change (Caligiuri, 2006).

2.2.3. Defining global leadership

After having clarified the two main confusions about global leadership, the concept can now be defined. From the simple dictionary definitions above, we conclude that it must be "the action of leading an international group of people or an international organization". But how exactly do you lead an international group of people or an international organization?

In view of the above discussion definitions by formal positions like "executives who are in jobs with some international scope" (Spreitzer, McCall, & Mahoney, 1997) do not seem to be appropriate. Definitions by common tasks of global leaders like "effectively managing through the complex, changing, and often ambiguous global environment" (Bartlett & Ghoshal, 1992; McCall, Lombardo, & Morrison, 1988) seem extremely general and give too little direction. It seems most appropriate to use a general definition that is most independent of cultural influences. McKenna found that definitions and perceptions of global leadership differ between cultures and countries indicating a difficulty of defining global leadership (McKenna, 1998). Still, although there remains a discussion on competencies, many authors identify a common vision of global leadership, independent from culture and region.

Drawing from the former definition of leadership, Osland et al. identify global leadership as the "process of influencing the thinking, attitudes and behaviors of a global community to work together synergistically towards a global vision and common goals" (Osland, Bird, Mendenhall, & Osland, 2007).

Scholars have identified common characteristics to achieve this (Gregresen, Morrison, & Mendenhall, 2000). Although some discussion remains, the use of a broader, task-based definition of global leadership that leads to a competency model seems appropriate.

2.2.4. The tasks of global leaders

A less subjective and more analytical approach to competency modeling has been proposed, namely the task-based job analysis (Sandberg, 2000). It looks first at the common tasks that global managers have to perform. Secondly, these tasks are rated according to their significance (e.g. importance and time spent on the task). In the next section, this will then serve as one approach of deriving underlying KSAOs to perform these tasks effectively (Goffin & Woycheschin, 2006).

To adopt these global strategies, global leaders have to perform different tasks that they performed before. Through a series of focus group meetings and surveys, Caligiuri identified the following 10 tasks and activities to be common among leaders from European and North American firms (Caligiuri, 2004):

1. Global leaders work with colleagues from other countries.
2. Global leaders interact with external clients from other countries.
3. Global leaders interact with internal clients from other countries.
4. Global leaders may need to speak in a language other than their mother tongue at work.
5. Global leaders supervise employees who are of different nationalities.
6. Global leaders develop a strategic business plan on a worldwide basis for their unit.
7. Global leaders manage a budget on a worldwide basis for their unit.
8. Global leaders negotiate in other countries or with people from other countries.
9. Global leaders manage foreign suppliers or vendors.
10. Global leaders manage risk on a worldwide basis for their unit (ibid.)

2.3. A review of global leadership competencies in the literature

As a consequence of the conceptual confusion of the underlying concept, identifying relevant competencies has created much argument in the literature. In particular it has been argued whether or not there is a generalizable set of managerial competencies that is independent of the organization. This section first describes generally the relevant impact of globalization on global leaders. Then, the tasks of global leaders are identified and an overview of existing

literature regarding global leadership competencies is provided. Finally, the results are synthesized to define a most suitable competency model.

Experience has often been recognized as a good predictor of leadership skills (Gregersen, Morrison, & Black, 1998). But even if relevant experience is a competency indicator, it does not fit in the KSAO model: it rather enhances competencies or points at competencies than being a competency itself and "may no longer prevail as selection criterion" (Jokinen, 2005). The important concept is the underlying or developed competencies.

The notion of a competency model has been defined above. This section presents an overview of the literature identifying the KSAOs of a global leader. The challenge of this section is that the KSAOs are described inconsistently in the literature under various construct labels like "global mindset" (Rhinesmith, 1992; Levy, Beechler, Taylor, & Boyacigiller, 2007), "cross-cultural competence" (Gertsen 1990 in (Bücker & Poutsma, 2010) and many more that seem to overlap. Hence, there is a conceptual diversity that makes it difficult to compare competencies in one framework. Furthermore, the majority of literature on global leaders or managers focuses on expatriates (Jokinen, 2005). However, a global leader does not necessarily have to be in a foreign country. Again, the competencies overlap between the two concepts overlap.

First studies followed a research-based approach and empirically identified competencies by interviewing samples of managers that were expected to be global leaders or relied on experience in the field to stipulate competencies without empirical evidence (Levy, Beechler, Taylor, & Boyacigiller, 2007). Later, some empirical studies followed.

From the above list of the 10 most common tasks of what are perceived to be global leaders, Caligiuri derived the following competencies using the KSAO framework (Caligiuri, 2006):

1. **Culture-general knowledge**: knowledge of the societal-level values and norms on which most cultures vary, rooted in anthropology
2. **Culture-specific knowledge**: understanding of one's given country's values, norms, beliefs, rites, rituals and behaviors
3. **International business knowledge**: topic-specific knowledge related to conducting business globally, topics are position-specific

4. **Intercultural Interaction Skills**: e.g. foreign negotiating skills or cross-national conflict resolution (improve over time as one learns the way in which cultural nuances affect interactions with people)

5. **Foreign Language Skills**

6. **Cognitive Ability:** given the demands of managing multiple cultures, a more advanced level of cognitive ability is required

Furthermore, the influence of personality is discussed using the Five Factor Model (FFM or Big Five) that classifies traits into

7. **Neuroticism (emotional stability)**
8. **Extroversion**
9. **Openness to experience**
10. **Agreeableness**
11. **Conscientiousness**

The five-factor model provides a comprehensive and parsimonious theoretical framework allowing for systematic reviews and meta-analyses of persons (Costa & McCrae, 1992). Trapmann et al. describe the factors as follows (Trapmann, Hell, Hirn, & Schuler, 2007):

"Neuroticism is a measure of emotional stability vs. instability. Anxiety, angry hostility, depression, self-consciousness, impulsivity, and vulnerability are the facets of this dimension as described by Costa and McCrae (Costa & McCrae, 1992).

Extraversion (or "surgency") is defined as the quantity and intensity of interpersonal interaction, encompassing traits such as assertiveness, sociability, activity, cheerfulness, and gregariousness. Hogan suggested that this dimension can be interpreted as ambition (initiative, surgency, ambition, and impetuousness), on the one hand, and sociability (sociable, exhibitionist, and expressive) on the other (Hogan, 1986). The six lower-level traits in the model are: warmth, gregariousness, assertiveness, activity, excitement-seeking, and positive emotions (Costa & McCrae, 1992).

Imagination, creativity, curiosity, originality, and artistic sensibility are associated with Openness to Experience (also called intellect or culture), which consists of the facets openness to fantasy, to esthetics, to feelings, to actions, to ideas, and to values.

Agreeableness (or likability) is associated with being courteous, flexible, trusting, cooperative, tolerant, and treating others fairly and kindly. Costa and McCrae mention the traits trust, straightforwardness, altruism, compliance, modesty, and tender-mindedness.

Finally, the individual degrees of dependability, organization, persistence, and achievement-orientation determine a person's Conscientiousness. The six facets in the model of Costa and McCrae are competence, order, dutifulness, achievement striving, self-discipline, and deliberation (ibid.)."

Although these personal characteristics are likely to underlie the ability to perform tasks effectively, a more thorough view is needed to address the question which character traits are relevant for global leadership. For example, Barrick et al. find in their summary of meta-studies on the effects of FFM on job performance that generally, conscientiousness is a general predictor of success, as well as emotional stability (Barrick, Mount, & Judge, 2001). The remaining three were not valid to predict success generally, although this might be true for certain occupations. For example, they found that in an environment that requires learning, openness to experience has the highest correlation with job success (ibid.). This definitely holds for global leaders.

As a result, only the competencies "openness to experience", "conscientiousness" and "emotional stability" were considered as relevant character traits from the FFM model quoted by Caligiuri (Caligiuri, 2006).

In the next step, meta-studies conducted by Mendenhall and Osland (Mendenhall & Osland, 2002) and Jokinen (Jokinen, 2005) tried to more generally identify core dimensions of competencies and discussed implications.

Mendenhall and Osland's comprehensive meta-study found 53 competencies associated with the construct of global leadership (Mendenhall & Osland, 2002). However, "a careful review (…) yielded underlying conceptual patterns that (…) could be categorized into (…) six dimensions" (Mendenhall M. , 2006). This table will later serve as a basis for identification of our KSAO competency model of a global leader.

Table 1: Global leadership dimensions, Mendenhall (2006)

Relationship	Dispositions	Business Expertise	Organizing Expertise	Cognition	Visioning
Close Personal Relationships	Curiosity	Global Business Savvy	Team Building	Environmental Sensemaking	Articulating a tangible vision and strategy
Cross-Cultural Communication Skills	Inquisitveness	Global Organizational Savvy	Community Building	Global Mindset	Envisioning
"Emotionally Connect" Ability	Continual Learner	Business Acumen	Organizational Networking	Thinking Agility	Entrepreneurial Spirit
Inspire, Motivate Others	Learning Orientation	Total Organizational Astuteness	Creating Learning Systems	Improvisation	Catalyst for Cultural Change
Conflict Management	Accountability	Stakeholder Orientation	Strong Operational Codes	Pattern Recognition	Change Agentry
Negotiation Expertise	Integrity	Results-Orientation	Global Networking	Cognitive Complexity	Catalyst for Strategic Change
Empowering Others	Courage		Strong Customer Orientation	Cosmopolitanism	Empowering, Inspiring
Managing Cross-Cultural Ethical Issues	Commitment		Business Literacy	Managing Uncertainty	
Social Literacy	Hardiness			Local vs. Global Paradoxes	
Cultural Literacy	Maturity			Behavioral Flexibility	
	Results-Orientation				
	Personal Literacy				

As discussed before, there are differences in the malleability of KSAO competencies, depending on **time and effort**. As several authors found, even with the luxury of time, a complicating factor for competency development remains – namely that some KSAOs are necessary for developmental opportunities to be effective since it determines the rate of learning:

Firstly, Mendenhall quotes scholars from the International Organization Network (ION) who argue that "leadership/managerial competencies cannot be developed (or are developed dysfunctionally) unless foundational competencies are first in place" (Mendenhall M. , 2006). This model identifies the four personality traits **integrity, humility, inquisitiveness and hardiness** as so-called "threshold traits" (ibid.) necessary to effectively deploy other leadership competencies (compare Figure 8**Erro! Fonte de referência não encontrada.**).
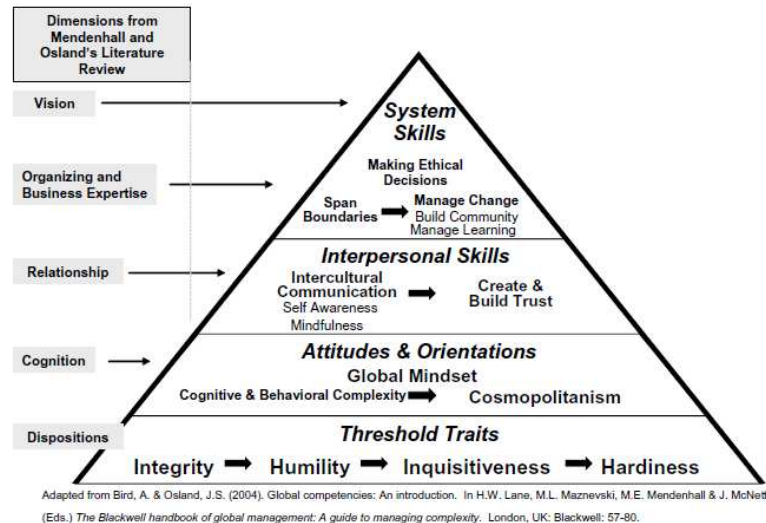
Figure 8: Competency levels, Mendenhall (2006)

Secondly, in a study examining the effectiveness of developmental international assignments, Caligiuri found that the greatest development occurred when individuals had significant interpersonal contact with host nationals — however, that contact with host nationals was limited by individuals' affiliating characteristic of openness (Caligiuri, 2000).

Thirdly, Jokinen also sees core and desired global leadership competencies and divides them into three levels (Jokinen, 2005):

- Core of global leadership competencies:
    1. **Self-awareness**
    2. **Engagement in personal transformation**
    3. **Inquisitiveness**
- Desired mental characteristics of global leaders
    4. **Optimism**
    5. **Self-regulation**
    6. **Social judgment skills**
    7. **Empathy**
    8. **Motivation to work in an international environment**
    9. **Cognitive skills**
    10. **Acceptance of complexity and its contradictions**

- Desired behavioral competencies of global leaders
    11. Social skills
    12. Networking skills
    13. Knowledge

A closer look at these "threshold" or "core" competencies shows that, according to Jokinen, self-awareness serves as an underlying concept for the core competencies. It means having a deep understanding of one's emotions, values and assumptions, strengths and weaknesses, needs and drives, sources of frustration and reactions to problems (Schein, 1985; Goleman, 1998). Jokinen relates it to the concepts of openness, value diversity, self-regulation and social awareness which in turn are fundamental concepts for the development of social skills, a key leadership skill for effective people management. The concept has also been referred to by other scholars as "maturity" (Brake, 1997), "self-confidence" (Spreitzer, McCall, & Mahoney, 1997), "personal literacy" (Mendenhall M. , 2006) and "well developed ego and self concept" (Srinivas, 1995). It serves as a basis for personal development since it marks the necessary starting point and compass of personal development.

Engagement in personal transformation was connected both to the concept of entrepreneurial spirit and the motivation, drive or desire to experience new things (Brake, 1997) and the connected concept of continual learning desire.

This learning desire has one key requirement, namely the openness of the character. Openness again can be divided into the concept of humility and inquisitiveness. Being open means a desire to experience new things and to accept divergent experiences and contrasts rather than looking for uniformity (Spreitzer, McCall, & Mahoney, 1997). Many authors also refer to "inquisitiveness" as "curiosity" (Mendenhall M. , 2006). In a second step then, it is the self-awareness and the personal reflection that lead to personal transformation and to learn from the experience. In that way, openness as a trait triggers one`s ability to change personal attitudes and abilities (Spreitzer, McCall, & Mahoney, 1997). Another aspect of openness refers to the cultural knowledge mentioned above. Harris and Moran found that inquisitiveness is essential for acquiring knowledge of cultural influences (Harris & Moran, 1987). According to Rhinesmith and Gregersen, it stimulates a person's motivation and readiness to enter new and unfamiliar situations (Gregersen, Morrison, & Black, 1998; Rhinesmith, 1992). It therefore also may be a reason for certain risk taking, initiative and commitment (Srinivas, 1995).

2.3.1. Global mindset

Referring to the results of Srinivas, Jokinen defines global mindset as "the base for competencies needed to meet the challenges organizations/individuals face especially when entering a global environment" (Jokinen, 2005). As Levy et al. state, "Global mindset has come to stand for everything that is supposedly global or transnational, from individual attitudes, skills, competencies, and behaviors, through organizational orientations, structures, and strategies, to policies and practices" (Levy, Beechler, Taylor, & Boyacigiller, 2007). Even though this diversity of perspectives and the pervasive use of the concept 'global mindset' has resulted in conceptual ambiguities, as well as contradictory empirical findings, it is still a key concept when discussing global leadership in the literature.

As one of the first works on the impact of globalization on leadership KSAOs, Rhinesmith has identified six characteristics of global mindset that lead to global competencies (Rhinesmith, 1992). These are: bigger, broader picture (leading to managing competitiveness), balancing contradictory demands and needs (managing complexity), trust in networked processes, rather than in hierarchical structures (managing adaptability), valuing multicultural teamwork and diversity (managing teams), flow with change/seeing change as opportunity (managing uncertainty), and expanding knowledge and skills, being open to surprises (managing learning) (ibid.). Morrison criticized that the majority of the early findings in this field were mainly relying on interviews or based on convenient small-scale studies which makes them difficult to generalize (Morrison, 2000).

Subsequently, a myriad of other scholars have proposed different competencies to be part of the global mindset. Levy et al. have performed an extensive summary of literature on global mindset that provides an excellent starting point for conceptualization (Levy, Beechler, Taylor, & Boyacigiller, 2007). Their conclusion is that the "majority of studies conceptualize global mindset in the relation to two salient dimensions of the global environment, most notably in relation to (1) cultural and national diversity and/or (2) strategic complexity associated with globalization" (ibid.). This confirms the above analysis that global mindset is a result of impacts of globalization. The authors identify cosmopolitanism as underlying theme of the management across cultural boundaries associated with global operations. Furthermore they identify cognitive capabilities as an underlying theme characterizing the increased strategic complexity of the global marketplace.

It can also be stated that referring to competency models, most literature in this domain focuses on personality traits or meta-competence and identifies intercultural competencies as an important dimension of global leadership.

2.4. Conclusion and synthesis

The main goal of the last section was to review global leadership competency frameworks proposed by previous scholars to then synthesize the main results to a KSAO competency model that will be examined in the following section.

Despite the large number of studies conducted on critical success factors for global leadership, there are very few to test hypotheses on the basis of empirical research, test the validity of the various elements and the reliability of the various measures. Results from previous studies accumulate a long list of skills that have marked only minor semantic differences of a much smaller number of key competencies. Virtually no longitudinal research has been reported that would define the relevance of the different competencies. As a result, there is little agreement between researchers on the definition of global competence.

The review has focused on two current meta-studies and one task-based analysis. The table of competencies identified by Mendenhall serves as an excellent starting point to our KSAO competency model. To obtain an operational model that serves as a basis for our research, these competencies first have to be grouped and second have to be mapped to the KSAO dimensions knowledge, skills, abilities and personality traits. Drawing from the previous discussion, the following grouping and consolidation can be applied:

- All relevant business expertise and literacy, including relevant orientations (e.g. results-orientation, stakeholder orientation, international, etc.) is grouped under the name of **global business knowledge**
- **Cross-cultural skills** are grouped together
- Cognitive skills are separated into **logical reasoning** for word processing and **quantitative and mathematical ability** for number processing (to be able to test it in the research)
- Grouping similar personality traits
  1. Curiosity and inquisitiveness

2. Personal literacy, responsibility and maturity

3. Thinking agility, improvisation and behavioral flexibility

- The following competencies are consolidated as "**teamwork ability**" and "**entrepreneurial spirit/initiative**": empowering others, team building, community building

- The following competencies are grouped under "**interpersonal abilities**": close personal relationship, emotionally connect ability, inspire and motivate others, empowering/inspiring

- The following competencies are grouped under "**cognitive complexity**": environmental sense making, pattern recognition

- Organizing expertise is consolidated to "**Organization skills"**, with some items being discarded as less relevant to our research question because they require a certain corporate tenure: creating learning systems, strong operational codes

- Cosmopolitanism is consolidated into the personality trait "**Openness to experience**" and "**cultural literacy**"

- Finally, **Change agentry** (including being catalyst for some kind of change) and **global mindset** are identified as the result of a combination of the other competencies and therefore not been considered as a competency itself that can be measured

The competencies Caligiuri identified according to the tasks of global leader are already mostly present in this changed model. "Culture-general knowledge" and "culture-specific knowledge" are accounted for in the competency "cultural literacy". Foreign language skills and English language skills in particular are added to the competency model in the knowledge dimension. The personality traits "conscientiousness" and "emotional stability" are accounted for in "responsibility", "integrity" and "stress tolerance".

The competencies Jokinen identified in her literature review also are mostly present in the table. "Self-regulation" is related to emotional stability in stress situation and therefore has been accounted for in "stress tolerance". "Engagement in personal transformation" can be understood as a combination of "self-awareness" and "initiative". "Social judgment skills" refer to the ability to see the broader picture and therefore are accounted for in "cognitive complexity". Finally, the category "motivation/drive" was added.

As a result, a table of competencies is obtained, categorized into knowledge, skills, abilities and personality traits, presented in Table 2. This result is the basis for later comparison to the admission criteria.

Table 2: Selected leadership competencies synthesized into a profile

Knowledge	Skills	Abilities	Personality traits
Cultural literacy	Cross-cultural communication skills	Behavioral flexibility	Creativity and innovation
English language skills	Managing conflicts	Cognitive complexity	Determination to achieve
General knowledge	Negotiation skills	Interpersonal abilities	Enterprising spirit/initiative
Global business understanding	Networking skills	Oral communication	Hardiness
Other foreign language skills	Organizational skills	Reaction to criticism	Integrity
	Structuring	Teamwork ability	Intellectual curiosity
		Logical reasoning	Motivation/drive
		Quantitative and mathematical ability	Openness to experience
		Written communication	Responsibility / accountability
		Stress tolerance	Self-awareness

As a second result of the literature review, and maybe more importantly, it has been argued that it may be as important to identify global leadership competencies as to understand their *hierarchy* in the development process. Some of the above personality traits and abilities influence the level of learning from experiences or education. The so-called **threshold model** provides an excellent basis for leadership development which seems difficult in absence of these threshold traits. Therefore, the complex topic of leadership development can be simplified in a way:

First, taking into account the relative difficulty to change personality traits and abilities, leadership development efforts for people who do not possess these threshold traits cannot be truly successful.

Second, it implies an increased relative importance to selection processes on the basis of personality traits. Considering the relatively immutable nature of personality traits, the short time frame of graduate program and the required tasks later in the business world, it seems reasonable to assess those personality traits that are relevant for the applicant's developmental potential to become a global leader in the admission process. This will help to identify the most promising candidates.

Drawing from Jokinen, Levy et al. and Mendenhall, of the above table, the following threshold competencies that impact the learning curve for other competencies were identified:

- Hardiness
- Openness to experience (humility & curiosity, cosmopolitanism)
- Self-awareness (maturity)
- Cognitive complexity
- Integrity

Another important result that follows is that if there is an "order" in the development of competencies, then people are required to understand to which degree they already possess these competencies in order to be able to advance (Mendenhall M. , 2006). For this, people need personal literacy, which is included in the required personality traits.

3. EUROPEAN MASTER IN MANAGEMENT (MIM) ADMISSION CRITERIA

This chapter describes the data collection and analysis performed to obtain a thorough insight into the admission criteria of the top European business schools regarding their flagship MiM programs.

First, the concept of the MiM programs is extensively described and put into context historically. At the same time, it is analyzed and compared to the concept of an MBA.

Second, the studied sample is described in terms of School origin, Degrees, EQUIS accreditation, Duration and Language of instruction.

Third, the two-folded process of data collection is described, on the one hand the publicly available information on the programs' homepages and on the other hand the survey of admission offices.

The results of this research are presented in the following chapter.

3.1. MiM program description

First of all, it is important to understand the concept of the MiM programs and to note that our research treats only European master in management programs. Their concept is different from programs that are often examined in the literature, namely the MBA programs born in the United States.

The MiM concept is based on the so called "Bologna Process". This process describes a political project to create a single European Higher Education Area by 2010. It is based on a 1999 agreement, signed by 29 European Ministers of Education in Bologna, Italy. In this process, the Ministers of Education also decided to introduce a consecutive, two-stage education system whose degrees are usually referred to as the "bachelor" (after three to four years of higher education) and the "master" (after another one or two years of higher education). Furthermore, the conference agreed on mechanisms to ensure quality, resulting in the EFMD and the EQUIS accreditation (European Commission, 1999).

Looking at the characteristics of the MiM programs, there are several observations necessary. Whereas in the United States, it is more common to gain work experience after having obtained a bachelor's degree, many European students directly continue their studies afterwards. The design of MiM is more academic oriented, not vocational. In contrast to MBA programs the emphasis is more on thinking and understanding than on doing, and on analysis rather than mere description (Graf, 2011). The following general characteristic hold:

- **Professional experience:**
  Generally, all programs are referred to as "pre-experience", i.e. no professional experience is required whereas for MBA studies, a minimum of three years is standard.

- **Age:**
  As a result, MiM applicants are usually much younger than MBA applicants, mostly in their early twenties.

- **Academic background:**
  Whereas MBA students generally come from arbitrary academic backgrounds, some MiM programs required specific knowledge in the field. This either refers to a degree in the field of management, business or economics or at least some ECTS the applicant has to have acquired in classes like accounting, finance, strategy. This is line with the more academic orientation of the MiM in comparison with the MBA.

3.2. Sample description

The master programs studied are all part of the 2010 Financial Times ranking of "Masters in Management". Business schools outside of Europe were not considered, reducing the sample from 65 to 60 programs (Financial Times, 2010). One program[3] was currently under revision such that the final sample consisted of 59 master programs.

A complete list of the universities, their origin and program names can be found in Annex – List of MiM schools, Program names, web sites and email addresses.

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[3] Master in Business Engineering of Solvay Business School

3.2.1. School origin

The associated business schools are located in Austria (1), Belgium (3), Czech Republic (1), Denmark (2), Finland (1), France (17)[4], Germany (4), Hungary (1), Ireland (1), Italy (2), Netherlands (4), Norway (2), Poland (2), Portugal (1), Spain (2), Sweden (1), Switzerland (2) and United Kingdom (11).
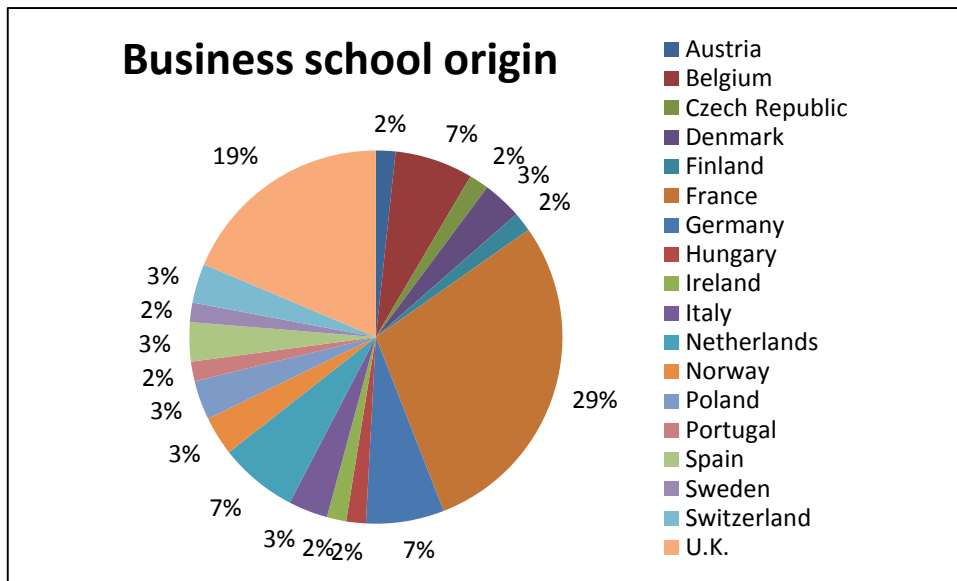
Figure 9: Business school origin

It is to note that the majority of business schools come from France (29%) and United Kingdom (19%).

3.2.2. Degrees

Ignoring the terms "international" and "global", there are generally four areas that are represented in the official degree names of the programs: business, economics, management and strategy. The repartition of degree titles is as follows:

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[4] ESCP Europe was founded in France and is managed from France until today

Degree titles

- Business
- Business/Economics
- Business/Economics/Management
- Management
- Management/Business
- Management/Strategy

4% 3% 17% 10% 2% 64%
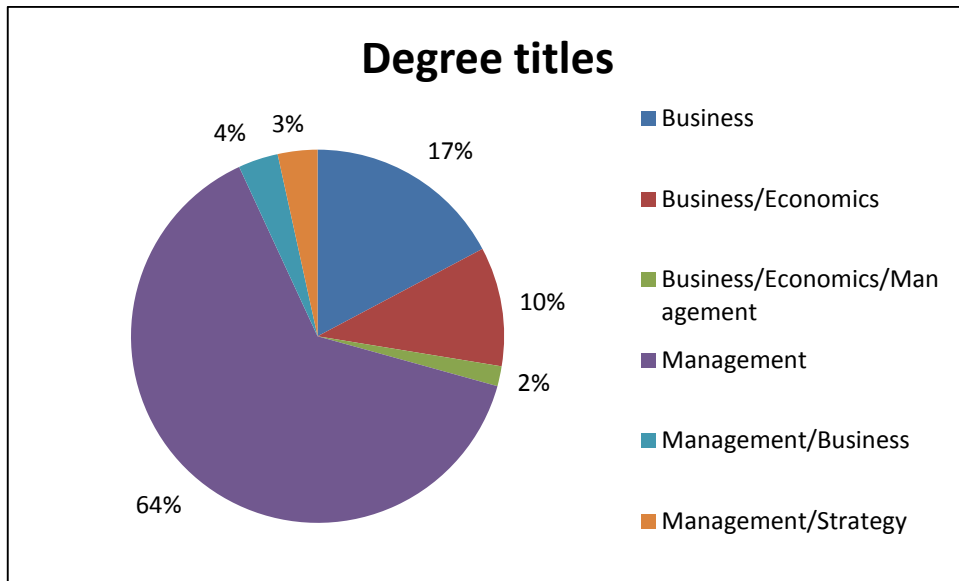
Figure 10: Degree titles

There are two types of degrees, Master of Science (MSc) and Master of Arts (MA). The MSc (Master of Science) is traditionally granted for Sciences and Social Sciences studies. Often these studies are grounded in empirical research, qualify for a PhD program and also teach statistical techniques. The MA (Master of Arts) traditionally refers to liberal arts programs even though you can find MA in Management programs (Graf, 2011). The repartition is as follows:

Degree types

25% 75%

- MA
- MSc
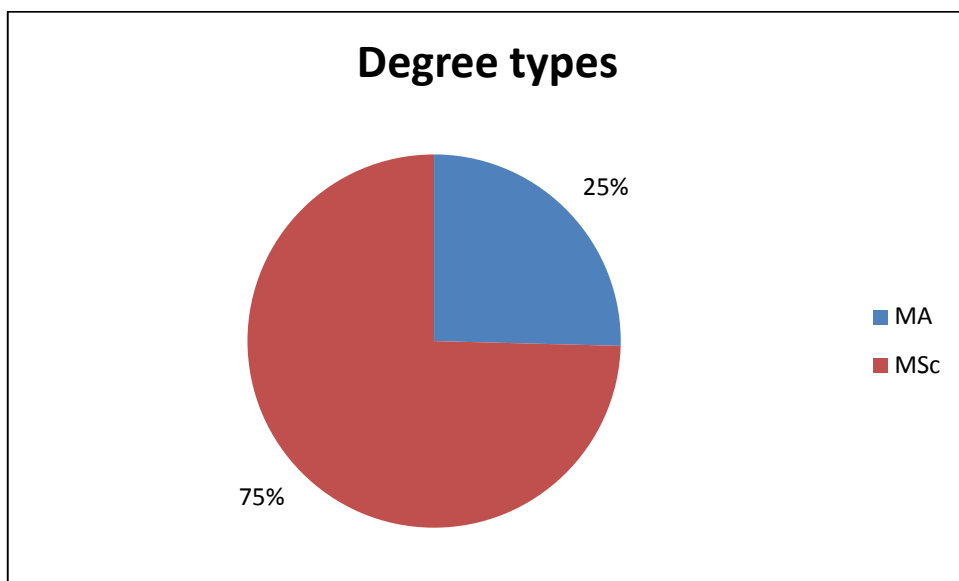
Figure 11: Degree types

3.2.3. EQUIS accreditation

EQUIS is one of the world's leading international system of quality assessment, improvement and accreditation of higher education institutions in management and business administration (European Foundation for Management Development, 2011). EQUIS' focus is on European business schools.

Its accreditation sets standards and criteria in the areas of

- Context, governance and strategy,
- Programs,
- Students,
- Faculty,
- Research and development,
- Executive education,
- Contribution to the community,
- Resources and administration,
- Internationalization and
- Corporate connections (EQUIS, 2011).

The big majority of the business schools in the sample is accredited by EQUIS:
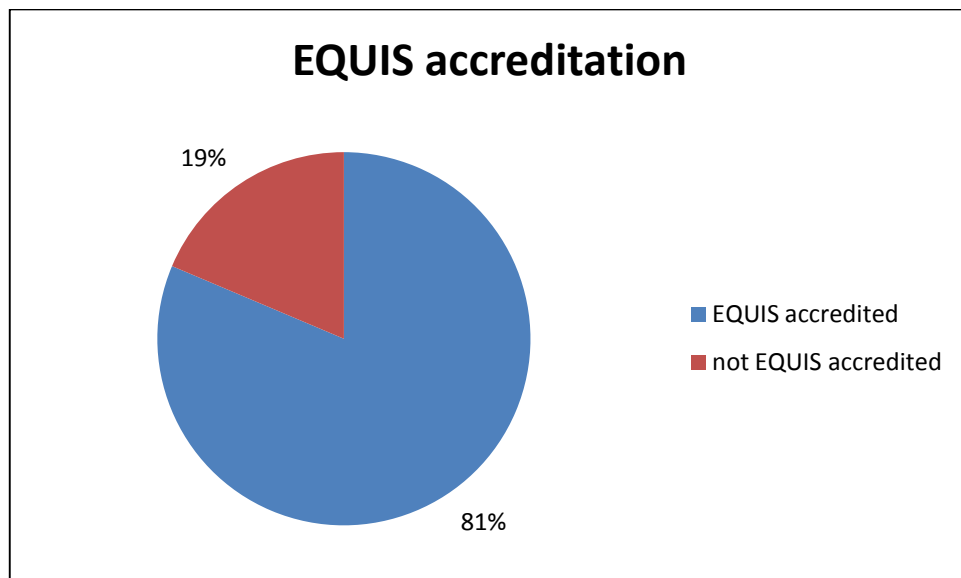
Figure 12: EQUIS accreditation of schools

3.2.4. Duration

Program duration varies from 10 to 22 months with an average of 18 months.
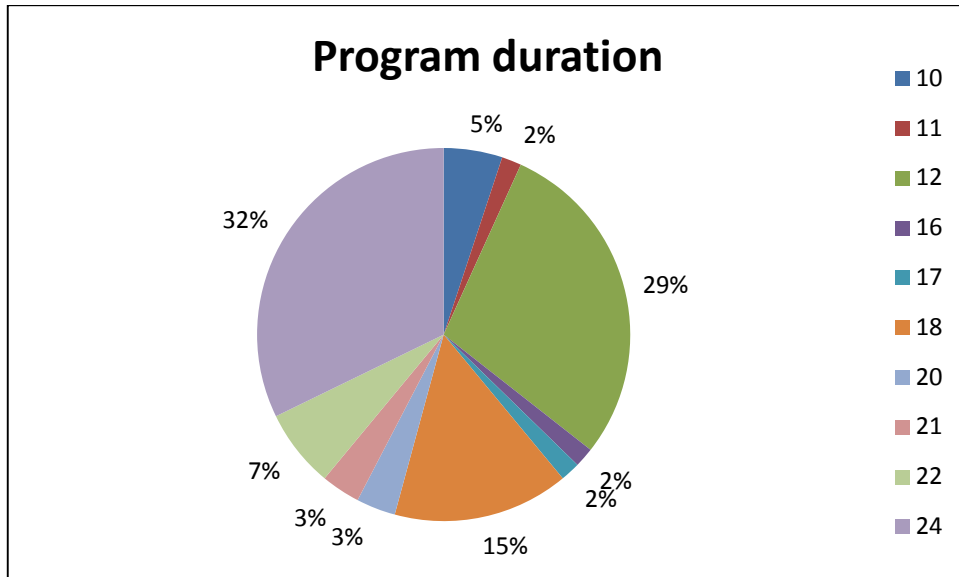
Figure 13: Program duration

3.2.5. Language of instruction

The standard language of instruction for all programs in the sample is English. Additionally, depending on the region of the business school, opportunities and requirements to learn a second language are provided or required.

3.3. Data collection

For each program, admission processes were studies. The data collection process was separated in two parts: first, only publicly available information on the programs' homepages was examined; second, an objective, qualitative questionnaire was sent to admission offices.

3.3.1. Publicly available information on the programs' homepages

All programs have web pages which provide more or less detailed information on admission processes. The goal was to get information on which competencies are relevant for admission. This data is collected for each program in two steps:

First, data on **competencies relevant to admission** was collected, for example if it was directly stated on the web page which criteria applicants should fulfill to be admitted or of competencies were mentioned in recommendation letter models. In general, there was no information

Second, data on **information sources** the universities use to admit applicants was captured. This includes

- Curriculum vitae (CV) / résumé
- Test results (e.g. GMAT, GRE, Tage-Mage, TOEFL)
- Undergraduate documentation
- High school documentation
- Free text motivation letter
- Information the applicant has to provide in the application file
- Letter(s) of recommendation
- Interviews (personal, telephone, group)
- Presentation

Then, in a second step, those **competencies that are measurable from each information source** are derived.

The resulting table can be found in the Annex.

Where possible, a registration as potential applicant was initiated, following the online registration process to be able to identify further competencies assessed in the admission process.

3.3.2. Survey of admission offices

In line with the concept of the KSAO competency model, an objective, qualitative and anonymous questionnaire was developed. All relevant global leadership KSAOs from the literature review are grouped by their category: knowledge, skills, abilities and personality traits. Then, three pieces of information are obtained from the admission offices:

- Which competencies impact the admission decision and which not?
- By what means are they measured?
- Do they have a minimum requirement that applicants have to fulfill?

This questionnaire was then processed as Internet Data Collection (IDC): on May 22, 2011, emails were sent to admission offices with the request to anonymously complete the questionnaire online. These email addresses were retrieved from the web sites of the programs. Please consult Annex – List of MiM schools, Program names, web sites and email addresses for email addresses. The email request, a model of the questionnaire and the results of it can be found in the Annex – Online Survey.

4. RESULTS

This chapter describes the results of the two methods used for research. Before describing the results of the information provided on the web pages and the results of the survey of admission officers, general results are given, important for the global understanding. Finally, a summary of the results will serve as a basis for the discussion in the next chapter.

4.1. General results on admission processes

This section presents general results related rather to the admission **processes** than to the admission **criteria**. The first section describes the specific role of admission to business schools in France. France has a parallel system of the management schools called *Grandes Ecoles* that intersect with the bachelor-master system. The second section describes the methods used to measure admission criteria or competencies. These results are a prerequisite to the next section and also important to be able to interpret the findings of the next chapter.

4.1.1. Admission to French business schools

Although generally, all programs follow the bachelor-master structure stipulated in the above mentioned "Bologna Process", i.e. application for any MiM program requires a bachelor's degree. As an exception, the French schools in the sample, being so-called *Grandes Ecoles*, have an alternative admission process for both national and international applicants. Due to the large number of French schools in the examined sample (17 out of 59), it is important to understand this process to be able to correctly interpret the results.

The standard admission process for international students is – like in the other European countries – mostly based on the bachelor's degree, other standardized tests, language expertise and a personal interview.

The standard admission process for national students however, is – to a large extent – very different from the admission process for international students. On the national level, the largest part of potential business students study two years (extendable to three years) in

classes préparatoires instead of three to four years in a bachelor's program before being admitted to business schools in a highly selective process. National students usually have to sit *concours* (examinations), an oral part and a written part. In this *concours*, candidates must demonstrate above all their general knowledge and abilities whereas special knowledge, skills, abilities or personal traits are not important. The focus is on oral and written expression (and spelling), a strong sense of logical thinking, and – for the oral part – the ability to perform under stress.

Another difference is that both for national and international applicants, it is also possible to apply with three years of higher education **without** having obtained a degree. Furthermore, most French business schools team up for admission, i.e. there is one admission process for applications to one or more schools of the group.

- The Ecricome consortium manages national and international applications to six schools represented in the ranking: Reims, Rouen, Euromed Marseilles, Bem Bordeaux, ICN, Tours-Poitiers. They use the same test, but each member school weights the results differently. For the interviews, applicants are invited to each single school that considers the application.
- The SAI consortium (*Service des Admissions Internationales*) manages international admission to HEC Paris, ESCP Europe, EM Lyon, Audencia Nantes and Skema. Applicants can apply in different rounds with the first round for high-potential students with GMAT of 700 or higher. Interviews are conducted only once for all schools, then admission is decided for each particular school applicants chose to apply at.

Hence, to a large part, France follows a management education system not fully compatible with the bachelor-master system stipulated by the Bologna Process. Still, this former structure of *Grandes Ecoles* remains in place where at the same time, bachelor's degrees and master's degrees are awarded after three respectively five years of study, in addition to the local diplomas (*Grande diplôme de commerce*) (Clark, 2004).

4.1.2. Specific entry requirements

All MiM programs require a bachelor's degree except for French schools, which accept three years of higher education as equivalent to a bachelor's degree. 18 schools (31%) require a degree in the field of business/management/economics and 10 more programs require some knowledge in the field, mostly a certain number of ECTS credit points required on certain classes in the field (e.g. accounting, finance, strategy, etc.). In total, this means that 28 schools (47%) require some previous knowledge in the field.

Only very few programs require work experience, in our sample, only three programs have a minimum requirement of work experience between three and six months. Still, twenty-three programs (35%) consider work experience as a plus in the admission process. Students with more than two years work experience are usually referred to the MBA program.

Specific grades in the undergraduate degree are required by 11 schools (19%); all except for one of them are in the United Kingdom and define specific equivalences for international applicants from other countries.

4.1.3. Overview of assessment methods

Standardized tests play an important role in the admission processes to the MiM programs. They are used to test for English language proficiency and for verbal, mathematical, and analytical abilities.

The TOEFL (Test of English as a Foreign Language) has been established as the most widely accepted test to demonstrate English language proficiency. It "evaluates how well you combine your listening, reading, speaking and writing skills to perform academic tasks" (ETS, 2011). All business schools require some kind of proof for the applicant's proficiency in English and 53 schools (90%) explicitly accept or exclusively require the TOEFL; it can therefore be considered as the standard. The required scores of the internet-based test range from 66 to 107 with an average of 92 out of 120 points. In the Common European Framework of Reference for Languages: Learning, Teaching, Assessment (CEFR), this corresponds to a B2 level (ETS, 2011), which identifies an "independent speaker", more concretely "vantage or upper intermediate". More concretely, he or she "can understand the main ideas of complex

text on both concrete and abstract topics, including technical discussions in his/her field of specialization; interact with a degree of fluency and spontaneity that makes regular interaction with native speakers quite possible without strain for either party; produce clear, detailed text on a wide range of subjects and explain a viewpoint on a topical issue giving the advantages and disadvantages of various options" (Council of Europe, 2001).

The GMAT (General Management Admission Test) was originally designed for MBA programs in the United States. It measures verbal, mathematical, analytical and writing skills of applicants by an adaptive computerized test (GMAC, 2011). In our sample, 42 schools (71%) perform their own or require an external test like this, 26 schools (44%) exclusively require the GMAT. Still, this shows that for the European MiM programs, the analytical tests play an important role. All top 25 programs require some kind of analytical test. If this kind of test is required and GMAT is accepted, 25 out of 42 schools (60%) have minimum requirements ranging from 450 to 650 out of 800 points with an average of 544 points. Whereas it normally does not depend on nationality whether a program requires an analytical test like the GMAT, no MiM program in the United Kingdom required this kind of test. In France, it is often possible to do the Tage-Mage test for analytical abilities and prove English proficiency by the TOEFL.

Knowledge can be assessed by a test (like the TOEFL) or by the academic record, as well as cognitive abilities (like the GMAT or academic results). Still, many other competencies relevant to admission are difficult to be measured this way. For them, the assessment process is more complex and business schools face difficulties quantifying non-standardized methods. Nevertheless, if they are important for success as a global leader, they should be considered along with standardized test results. Generally, the following other methods are used by the MiM business schools to measure admission criteria:

- Résumés
- Self-assessment
- Essays / motivational letter
- Recommendation letters
- Interaction

Résumés are mostly completed in an online application form as well as attached as a separate document the applicant has created. 48 schools (81%) require a self-created CV to be sent along as documentation.

Self-assessment via an online portal was only used in a few cases and cannot be seen as a reliable source of information since applicants might fake answers or exaggerate their respective KSAO.

All essays required were answers to predefined questions on the applicant's motivation, professional future or personality. Therefore, it was grouped with motivational letters that are sent in separately. This kind of documentation was required by 32 schools (54%).

Recommendation letters are used by many schools to get an idea of how the student is seen by former professors or employers. In our sample, many schools use explicit models to be sent sealed to the program admission officers. They in most cases list characteristics and competencies of the applicant and ask the referee to assess them. This method is prone to errors as well, since the applicant can choose the referee and will most probably ask a person who is in favor of a candidature. Even if this same fact applies for all applicants, the personal impact of the referee is generally high. Recommendation letters were required by 36 schools (61%), either one (10 schools, 17%) or two (26 schools, 44%).

Interaction in some kind is used in by most schools to assess applicants' competencies. Individual interviews are conducted by 34 schools (58%), group interviews or discussions by only two schools (3%) and presentations by three schools (5%).

4.2. Admission criteria according to web sites

This section presents a summary of the results on admission criteria for the MiM programs as described by the program web site, mapped to the KSAO competency model. First, a comprehensive overview of all competencies and their frequency used in the selection process of the 59 MiM programs is given (threshold competencies in blue). Second, the results are summarized and clustered.

Whereas the above described assessment **methods** of competencies are mostly very similar among the schools, the admission **criteria** are less clear and less conform.
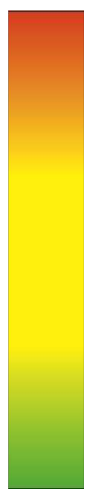
Table 3: Summary of competencies used in the admission process of the MiM programs

Admission criterion	KSAO	frequency
English language skills	K	100%
Logical reasoning	A	83%
Written communication	A	75%
Quantitative and mathematical ability	A	73%
Global business understanding	K	69%
Oral communication	A	69%
Determination to achieve	O	69%
Motivation/drive	O	69%
Interpersonal abilities	A	56%
Self-awareness	O	42%
Teamwork ability	A	41%
Enterprising spirit/initiative	O	41%
Cultural literacy	K	34%
Cognitive complexity	A	27%
Other foreign language skills	K	24%
Creativity and innovation	O	24%
Responsibility/accountability	O	22%
General knowledge	K	17%
Structuring	S	17%
Behavioral flexibility	A	17%
Organizational skills	S	15%
Cross-cultural communication skills	S	8%
Managing conflicts	S	7%
Integrity	O	7%
Intellectual curiosity	O	7%
Openness to experience	O	3%
Stress tolerance	A	3%
Negotiation skills	S	2%
Reaction to criticism	A	2%
Networking skills	S	0%
Hardiness	O	0%

For a detailed list of the criteria assessed per school see Annex (chapter 9-12). Note that if there were different ways of admission, all available information on criteria was combined to identify all competencies the school assesses.

Summarizing the above results, we look at the admission criteria that were used by more than 50% of the business schools. We obtain **seven most important admission criteria** that can be grouped in three clusters:

Table 4: Cluster of most commonly used admission criteria

	Group 1, checked by >80%	• English language knowledge • Analytical ability (logical reasoning and quantitative)
	Group 2, checked by >68%	• Communication ability • Global business knowledge • Determination to achieve • Motivation/drive
	Group 3, checked by >50%	• Interpersonal ability

Regarding our KSAO model, two of these seven items refer to knowledge, none to skills, three to abilities and two to personality traits.

4.3. Admission criteria according to online survey

This section presents a summary of the responses on the admission processes and criteria for the MiM programs of the survey performed among admission offers. Again, competencies were mapped to the KSAO competency model. For detailed results please refer to the Annex

– Online Survey. Due to a low response rate of 16 out of 58[5] emails sent (28%), we will treat the results only as indications and compare them to the results of the previous web site research that provided extensive results.

The first finding concerns the admission process design rather than concrete criteria. An important indication of the survey results is that only about 50% of business schools (8 out of 16 answers) use a formal system with predefined categories to assess applicants to their MiM program. Similarly, in about 50% of the cases, final admission is decided by the program coordinator or director whereas otherwise, the admission office or a selection committee decides.

The second finding provides insights about the methods how relevant KSAO admission criteria were measured. The following table summarizes the results. As before, each KSAO category comprises the competencies identified in section 2.4. To give an example of how to read the table, the 5 knowledge items were cumulatively measured 83 times by the 16 schools in the sample, namely 19 times by a test, 43 times by documentation, 19 times by interaction and 2 times by recommendation letter(s).

KSAO/Measurement	Test	Documentation	Interaction	Rec. Letter
Knowledge	19	**43**	19	2
	23%	52%	23%	2%
Skills	12	27	**44**	1
	14%	32%	52%	1%
Abilities	41	**49**	21	7
	35%	42%	18%	6%
Personality traits	0	74	**110**	18
	0%	37%	54%	9%
	72	193	194	28

Figure 14: Overview of admission criteria assessment method frequencies

The questionnaire suggests clearly that recommendation letters are far less used than any other methods to assess applicants in the admission process. The information about applicants' competencies extracted from them seems minimal. On the other hand, they are required by 61% of the business schools in the sample.

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[5] No email address of an admission officer at London School of Economics and Political Science could be retrieved.

Standardized tests were nearly exclusively used to assess English language knowledge (like the TOEFL) and analytical abilities (like the GMAT), but for these competencies intensively. The skills assessed by a test (12) were largely structuring skills (7), indicating a desired reference to the test for analytical abilities (like the GMAT) and hence a skew result.

We can conclude that the bulk of information on the applicant apart from these two tests – as can be seen in the table –is gained by the documentation handed in and the interaction with the applicant. On the other hand, as we have seen in the previous section, only about 60% of the schools perform some kind of interaction with the applicant whereas all schools require the submission of some kind of documentation. As we see above, for the 40% of schools that do not perform any kind of interaction with the applicant, it is particularly difficult to assess the SO competencies (skills and personality traits). Altogether, these facts indicate that the submitted documentation generally provides the greatest source of information for the business school admission offices.

The third finding refers to the admission criteria themselves and the outcomes are summarized per category:

- **Knowledge:**
  The survey confirms the finding that English language is a threshold competency (12 out of 16 name it as a critical criterion). Previous knowledge in the field of business or management is checked by all schools but only a critical criterion for about half of the schools. This confirms the finding of the web site research where 47% of the programs required some kind of previous knowledge in the field. Cultural knowledge is assessed in most of the cases, either by **international experience** mentioned in the submitted documentation or by interaction. Other foreign languages and general knowledge carries less importance with around half of the schools not measuring it.

- **Skills:**
  Among all four KSAO competency model categories, skills seem to have the least relevance in the admission process. Five out of eight skills identified are measured by less than 50% of the schools and **no criterion is clearly identified as critical**. Managing conflicts and cross-cultural communication skills are measured during interaction only whereas organizational skills are also measured by personal

interaction. As mentioned above, "structuring" might be misunderstood with GMAT competencies since many schools state that this is measured by a test.

- **Abilities:**

  The clearest result of this section is the use of some test (e.g. **GMAT**) for analytical abilities (verbal and quantitative) by 12 out of 15 schools where in about **half of these cases it is a critical criterion**. Again, this confirms the findings of the web site research where around 70% use some kind of analytical test and 60% of them require a minimum score.

  Confirming the previous results, communication skills are considered to be an important factor but there seems to be no other widely accepted critical competency. Results on cognitive complexity are contradictory with some of its categories being assessed in many cases (like managing uncertainty and critical thinking) and other not at all (like recognizing underlying concepts or patterns).

- **Personality:**

  No school in the sample performs a standardized test to assess personality traits. Questionnaire results indicate that about half of the traits listed were irrelevant. The remaining relevant seven personality traits can be ranked as follows (measured vs. not measured, totals above 16 due to double entries)

  1. Motivation/drive   (24 vs. 4)
  2. Determination to achieve   (21 vs. 3)
  3. Self-awareness/maturity   (12 vs. 6 / 16 vs. 4)
  4. Enterprising spirit/initiative   (15 vs. 4)
  5. Openness   (15 vs. 4)
  6. Stress tolerance   (13 vs. 5)
  7. Integrity   (11 vs. 6)

  As seen above, the biggest information value for personality traits (in particular those that are checked most often, namely "determination to achieve", "enterprising spirit/initiative" and "motivation/drive") come from personal interaction.

  Comparing to the web site research, results match very well, the order of personality trait importance in the admission processes is equivalent.

4.4. Summary

The results of the research regarding admission criteria have been very consistent regarding the two methods of examination (program web page information and survey of admission officers). The criteria that have been found to be important according to the program web pages have also been indicated as important by the admission officers. This indicates that admission criteria are internally assessed the way they are described publicly. This is an important result for applicants, indicating that there is no "hidden agenda" of the admission process.

Turning to the results on the criteria, this research produced very interesting results. All schools require English language knowledge, the required TOEFL scores averages 92/120 points and therefore corresponds to a proficiency level (B2) in the Common European Framework of Reference for Languages. Analytical abilities are checked by more than two out of three schools, the GMAT is clearly the standard although some schools perform proprietary tests. These two competencies can be seen as the threshold competencies in our research. It is interesting to note that no competency classified as skill was measured by a significant amount of MiM admission processes.

The required documentation to be sent by the applicant, namely the CV and the academic record, are the most important sources of information for admission officers. Recommendation letters do not play a relevant role in the measurement of competencies although they are required by more than half of the schools. Personal interaction plays the most important role to measure personality traits and is performed by about 60% of business schools, nearly exclusively in the form of personal interviews. The remainder of the schools relies on the applicant's submitted documentation to measure personality traits. More complex assessment methods like presentation or group discussions are only performed sporadically.

Cultural knowledge is measured by international experience or during personal interaction but does not seem to play an important role in admission processes. Similarly, self-awareness does not play such an important role, although many schools require self-reflecting questions to be answered either as a written essay as part of the application or as questions asked during personal interaction.

Summing up, in the KSAO model, six competencies that are checked by two out of three schools have been found (see Figure 15 below).
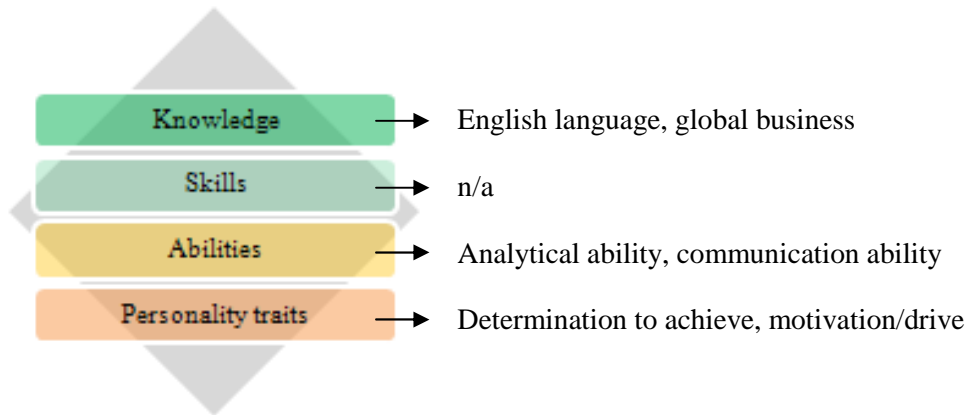
Figure 15: Summary of admission criteria checked by 2/3 schools

5. DISCUSSION OF RESULTS

This chapter discusses the research question stated and its derivatives in section 1.1. The research question was to find out whether the admission processes of the European MiM programs select candidates that are best suited for the development of global leaders.

The answer to the first subquestion of how the concept of a global leader discussed in the literature translates into a profile with common competencies requested by the business world has already been answered in section 2.4. A synthesis of the reviewed meta-studies has been worked out and the resulting profile of a global leader is used in this chapter as a foundation to interpret the results of the research in section 4.4.

Before addressing the subsequent subquestions, the limitations of this research are pointed out.

5.1. Limitations of this research

This research is mostly subject to the three limitations concerning the theoretical concept applied, the choice of the sample of business schools programs and some common limitations regarding the survey performed amongst admission officers.

5.1.1. Identification of global leadership competencies

The literature uses the concept of a global leader, which in this case is the focus group of research, with different meanings. Therefore, an effort has been made to clearly distinguish the concept from other meanings. Still, authors list a myriad of competencies that often have not been validated well enough by empirical research. Different dimensions of traits, skills, abilities etc. have been mixed and treated as equal. Therefore, the identification of global leadership competencies might be somehow not fully representative of the actual needs of global leaders.

5.1.2. Choice of sample

The examined business school programs in the sample were not chosen at random. While there are many more business school master programs in Europe, only those that are in the ranking of Financial Times "Master in Management" (Financial Times, 2010) were examined.

On the one hand, this is likely to be a bias compared to other schools; on the other hand these schools were explicitly chosen because of two reasons:

First, it was assumed that of all business schools in Europe, these ranked business schools actually represent those schools that are most relevant for global leadership development. They probably serve as reference examples to other schools. In the end, most schools use the fact of being ranked as publicity and improve their relevance to the economy. This implicitly implies that the ranking uses the right assessment method and manages to identify the "best" business schools.

These business schools particularly focus on internationality since it is an important factor in the FT ranking and therefore have a better starting position to achieve global leadership development in comparison to local schools or small schools that do not have the network, reach or focus.

Second, information availability for the business schools in the ranking is more widely available and more often available in English. This is important to be able to collect data on admission criteria, the main aspect of research of this paper.

5.1.3. Survey design and completion

Regarding the survey questions, the two key characteristics of the survey are the shortness and the use of closed-ended questions. The shortness was required to maximize responses of admission officers. Closed questions were used requiring participants to evaluate those competencies defined in the section "Conclusion and " the respective business school uses in the process. Still, they could provide other competencies by an extra input field, giving them the possibility to correctly depict their admission process. This process may lead to biases but is preferred to purely open-ended question approach due to the confirmatory type of this research.

Regarding the research participants, the survey was sent to the email addresses of admission offices of the sample business schools. It cannot finally be assured that the person in the admission office who completed the survey has full knowledge about the competencies (e.g. personality traits) evaluated in the admission process. Still, the choice of admission officers is the best proxy in this case. Another potential bias might be that only those admission officers take part in a survey that generally put significant effort in the admission process and therefore have a more structured insight into admission criteria.

Regarding the response rate, of all 58 emails sent to MiM admission officers, first only six answers could be collected. After a personal phone call reminder the response rate went up to 16, corresponding to 28%. Despite the effort made, this response rate cannot provide a comprehensive image of the admission processes seen by the admission officers. Therefore, results might be biased and have been treated as indication only.

5.2. Relevance of the concept of a global leader for the MiM program

This section addresses the second subquestion whether, according to the information provided on their web sites and in their brochures, business schools envision their graduates to be global leaders. This is relevant to check whether the link that this research established between global leadership and the MiM business school programs is valid.

To verify this connection, it is not sufficient to compare the MiM admission criteria to the global leadership competencies. Even if they were the same, this could be accidentally. The research has to prove intent on the part of the MiM program design to develop global leaders. To do this, a content analysis is performed. In this analysis, two dimensions have to be examined: the attribute to be "global" and to aim at "leadership".

First, the relevance of being "global" or "international" is examined. As found in the literature review in section 2.2.2 on the distinction of Global vs. domestic leadership, the word "global" and "international" in the context of leadership are used equivalently. As a first indicator, 15 schools (25%) in the sample explicitly contain either the word "global" or "international" in the name of the official degree awarded at the end of the program. Furthermore, content analysis of the MiM program objectives according to the program web site, brochures and other publicly available information shows that all business schools stress the international or

global aspect of their MiM program. They refer to terms like "international career" and "international and culturally diverse context". In this context, it is important to note that all schools are committed towards an international student body because this is one of the factors significantly affecting the score in the FT ranking (Financial Times, 2010). Another indicator is the high and increasing number of exchange programs and double diploma agreements and their proactive marketing on the part of the business schools.

Second, the relevance of aiming to develop leaders is examined. As found in the literature review in section 2.2.1, the terms "leader" and "manager" are sometimes used interchangeably, although "manager" rather describes a functional position in the company whereas "leader" focuses on the action and behavior of effective management. The goal and/or self-understanding of educating leaders can be found on many program web sites, too. To name some examples, Essec describes the educational objective as graduates becoming "responsible leaders able to adapt to an increasingly complex and constantly changing environment"; Kozminski wants to "educate well-equipped international managers, preparing them to play a leading role in dealing with international business issues throughout the world"; Skema wants graduates to "become the leaders of tomorrow"; CEMS want them to "take on future management challenges"; Edhec wants them to "prepare for a top management career"; Strathclyde wants to meet the "great demand in companies for high level expertise in international management and global leadership"; many other examples can be found. The fact that these business schools are top ranked by Financial Times, a renowned institution in the sector, contributes to their self-image of building leaders. Another indicator for this is the fact that all MiM programs, regardless of their country origin, offer the program in English (while at the same time sometimes offering select classes in the home country`s language).

Consequently, the MiM programs are conceptualized to develop global leaders. It follows that selection process should be supportive to reach that goal, i.e. select the applicants with the greatest potential to have global leadership competencies at graduation.

5.3. The importance of admission processes

This section addresses the third research subquestion what role the admission process play, considering the constraints of educational programs to develop competencies.

Prima facie, admission criteria are defined to admit students that successfully complete their graduate studies. On the other hand, since top business schools have large number of suitable applicants, more importantly admission criteria can be seen as a first step to select potential global leaders. The profile of a global leader has been defined in section 2.4. This can be seen as the basis from where business schools have to clearly identify their interpretation of global leader and derive a competency profile. This profile serves as guideline for all HR processes of the MiM program, both regarding education and selection (Campion, Fink, Ruggeberg, Carr, Phillips, & Odman, 2011).

Many other factors increase the importance of selection processes. First we consider the relative immutability of parts of the KSAO competency model, namely abilities and personality traits (Caligiuri, 2006). This means that for business schools, it is much more difficult to teach abilities and personality traits to someone who does not possess them than to teach knowledge and skills. In order to decide whether this is relevant or not, it is necessary to look at how important each of these competency categories is. If abilities and personality traits were not so important in global leadership development, why bother that it is difficult to develop them? A closer look at the literature review and the examined meta-studies however showed that personal abilities and traits are not only important for global leaders to have but present a threshold competency that is required or at least beneficial for the development of other KSAO competencies. Students with a lower level of these threshold competencies will not benefit as much from the education the business school offers as those who have a higher level. Finally, the research found that the average duration of master programs is 18 months, that is to say that there exists a significant time constraint for business schools to make sure that MiM graduates possess global leadership competencies.

In this context, an inconsistency can be observed. On the hand, personality abilities and traits are threshold criteria for the development of global leader competencies and personal interaction is used as the most important means to assess them. On the other hand, only 60% of MiM programs perform some kind of personal interaction whereas 40% rely on written material to assess them. The research indicates that these 40% might have more difficulties to

identify the applicants with highest potential to possess global leadership competencies at the moment of graduation.

5.4. Matching admission criteria to global leadership KSAO

This section addresses the fourth research subquestion, namely how the admission criteria of the MiM programs compare to the KSAO competency model of a global leader developed in section 2.4.

In general, the KSAO model in section 2.4 identified 5 knowledge items, 6 skills, 8 abilities and 11 personality traits to be relevant global leadership competencies. Except for hardiness and networking skills, all of these 30 competencies were used in the MiM selection processes. Other competencies measured in the admission processes could be mapped to the dimensions defined in the model. Hence, as a first result we conclude that the KSAO model of global leadership competencies defined in the literature and the admission criteria of MiM programs intersect to a large extent. However, the frequency of occurrence differs significantly and many competencies are used as admission criteria by only very few schools.

In practice, the assessment of competencies is a complicated process for business schools. The more exact the competency profile of an applicant has to be determined to decide admission, the more money and time the business school has to use. Knowledge and certain abilities can be measured by standardized tests which are conducted and evaluated *outside* of the business school. Skills and personality traits are much more difficult and costly to assess. Given the constraints of admission offices, admission offices in many cases focus on few threshold competencies instead of a large list of competencies similar to the one developed in this research for practical reasons.

- **Knowledge:**
  In the research, only two out of five knowledge items are relevant. English is tested to ensure the student's ability to follow the educational process. Global business understanding is tested because some programs consist of advanced courses whose prerequisites cannot be taught due to time constraints. Other knowledge items were found to be relatively insignificant, although top programs like CEMS, WHU and ESCP-EAP promote other foreign languages.

- **Skills:**

  The profile of a global leader, according to the literature, includes skills like networking skills, organizational skills and negotiation skills. So why do business schools largely not consider skills in the admission processes? The answer can be three-fold: either business schools consider skills as not that important or they rely on the fact that these skills are developed until the time of graduation. The last option seems more probable, considering that there are classes in negotiation and cross-cultural management at many business schools and the majority of MiM programs include mandatory company placements.

  In the context of the global mindset, the literature emphasizes the importance of cross-cultural communication skills. Even though this criterion is not measured by the majority of the schools, they do take into account whether the applicant has an international profile and, more importantly, provide international experience during their education (e.g. internships or exchange semester abroad, cooperation with foreign universities).

- **Abilities:**

  Generally, abilities are considered to be important by the business schools (most of them are measured by more than 40% of the schools). Their relatively immutable kind makes them the most important selection criteria. This can also be seen by the fact that some schools (e.g. Bocconi and SAI consortium) have special rounds for so-called "high-potential" applicants with high GMAT scores.

  According to parts of the literature, cognitive complexity is an extremely important factor. It refers to the ability to process information from multiple sources. Nevertheless, it is only used by 27% of the schools in the sample. The GMAC has picked up this wish of schools to know how applicants "perform in today's information-rich climate". Hence, the so-called *Next generation GMAT* will include cognitive complexity measurement starting from June 2012.

- **Personality traits:**

  Particularly for personality traits, business schools seem to have focused on four key personality traits, on the one side recognizing their importance, on the other side acknowledging the fact that they are difficult to measure. Except for "determination to achieve", "motivation/drive", "self-awareness" and "enterprising spirit/initiative" personality traits are not relevant for most of the MiM programs.

5.4.1. Threshold competencies in the admission

Threshold competencies are a prerequisite to develop other competencies or at least trigger the learning rate of them. This section compares the competencies that, on the one hand, have been identified as threshold competencies along with the KSAO model for global leadership competencies in section 2.4 and those, on the other hand, which have been identified in the research to be threshold competencies for the MiM programs.

All threshold competencies identified in the literature are personality traits. The threshold traits identified were: hardiness, openness to experience (humility & curiosity), self-awareness (maturity) and integrity. The expectation was that if schools have effective admission processes to identify potential global leaders, these competencies would figure high up in the list of admission criteria. This is only partly the case: In our research, although they are considered as important admission criteria (position 5, 6, 8 and 10), other KSA criteria are more important.

- "Hardiness" interestingly is not explicitly considered as admission criteria by any school. On the other hand, the competencies "determination to achieve" and "motivation/drive" are the most important personality trait competencies and can be linked to the concept of hardiness. According to the Oxford dictionary of modern English, hardiness is defined as "the ability to endure difficult conditions" (Oxford Dictionaries, 2011). Determination and motivation are clearly important prerequisites for hardiness. Consequently, looking more in detail at the prerequisites of hardiness, we do find the concept in the top 10 admission criteria (position five and six).

- "Openness to experience" is only used by very few business schools as admission criteria. To be open to experience, humility and curiosity (inquisitiveness) is required (Edmondson, 2008). Curiosity as one aspect of openness also figures low in the ranking.
- "Integrity" ranks low in the list of admission criteria and is not used by many schools.
- "Self-awareness" was the eighth most used and therefore ranks high among admission criteria for MiM programs. This confirms the importance of the personality trait for the engagement in personal development and the learning curve.

One possible explanation is that personality trait competencies are difficult to measure, in particular by a standardized test. Whereas "self-awareness" can be and is mostly checked by asking the applicant questions about himself and making him reflect his own personality, "integrity" seems to be a concept that is more difficult to assess.

The most obvious threshold competency in admission processes is proficiency in the English language. Since all programs are taught in English, these requirements make sense to effectively be able to follow classes and participate in discussions. Those who master the English language will have a clear advantage over the others, i.e. the less students master English the less effectively they are able to benefit from the development of competencies. This is clearly reflected in the sample since 100% of business schools check in some way or another for English language competency. In the literature, the knowledge of foreign languages is mentioned but no particular stress is made that knowledge of the English language is a threshold competency.

The most important admission criterion (English language) is assessed by standardized test, the TOEFL. Similarly, the GMAT is used to test analytical ability, whereas the remaining competencies are mostly tested by individual interaction (communication skills) or the academic profile (global business knowledge). The emergence of a standardized personality test which effectively assesses personality traits and is difficult to fake would maybe change this picture.

5.5. Summary

Two points are important to make: First, the literature identifies so-called threshold competencies that are required for an effective development process of applicants towards the desired profile of a global leader at the moment of graduation. These competencies are all personality traits and should be very much desired by the business schools. If they find a cost-effective measure to test them, their weight in selection processes for global leadership development should increase.

As we have seen, about 60% of business schools use personal interaction, mostly in the case of interviews, to determine these particular personality traits. Our survey indicates that they are difficult to assess reliably by other methods. This means that some schools accept students "on the basis of educational credentials and assume that candidates come with the appropriate motives and traits or that they can be indoctrinated in them" (Bassi & Russ-Eft, 1997). Research shows that the relatively immutable nature of abilities and personality traits implies that business schools cannot effectively develop or change these competencies during the educational process. Hence, they have to pay increased attention to the admission process to identify students that already possess these personality traits and abilities. It might be more cost-effective to admit applicants with the right motives and traits and develop their knowledge and skills competencies to match the profile of a global leader at graduation.

5.6. Recommendations on admission processes and criteria

In general, the easier it is to change a person's KSAO item, the more the school can rely on its educational process to develop this KSAO. In other words: the more difficult it is to change a person's KSAO item, the more important it is to assess the applicant's level at the moment of application. Considering the relatively short duration of the examined MiM programs between 10 and 24 months (Financial Times, 2010), the business schools face a further constraint in improving KSAOs. Thus, the above mentioned facts increase the relative importance to include KSAOs that are difficult to change in the selection process. As one of our results, certain personality abilities and traits are part of the desired global leader KSAO competency model. Business schools should perform some kind of personal interaction to measure these competencies. To minimize the increased amount of resources required to do this, business

schools can either group together as they do in France or activate their alumni network to perform interviews where possible. The incremental gain of information must be of key interest, particularly to the top European business schools.

The harmonization of European master programs is still a young project: some of the master programs have been conceptualized few years ago (e.g. WHU) and some web pages are not even properly translated to English for international applicants although the school gushes about the internationality of its MiM program. This shows a construction site regarding both content and presentation. Presentation-wise, there is still a way to go for many business schools to provide adequate information on their programs. The web pages show applicants a first impression of the school and top applicants might be reluctant to apply for a school with a poorly presented program web page or with little information in English. For business schools, it is extremely important to communicate the competencies they are looking for to make sure the applicant pool is suitable. Only three programs in the sample however describe the exact way how they select students, namely according to which criteria they look at applications and more importantly how they **weigh** them. Hence, information provision clearly has to be improved. Content-wise, there remains some confusion about the MiM programs. It cannot clearly be seen where the difference between an MA in International Business and an MSc in Management is and why for some MiM programs, previous knowledge is required and for some it is not even allowed to apply with a bachelor in the same field. There should be a clearer distinction between the natures of MiM programs, namely between masters that require previous knowledge in the field (one could call them for example business degrees) and those that do not (one could call them for example management degrees). This would also significantly improve the orientation of companies that need a clear vision which competencies graduates from a certain degree program possess (e.g. global business knowledge). In this context, it might be useful to develop a short standardized test of minimal knowledge that MiM students must possess.

Finally, although this was not the focus of the research, it seems that investments in personal development of students, according to the KSAO model of global leadership, seem to be a worthwhile. This could be in the form of increased project work, workshops or interactive classes to enable personal transformation. For example, Harvard Business School lets their

MBA students perform a self-assessment of their personality ("who you are, what you want, where you would like to go, […] deepest life interests, your business skills, and your own work/reward values") and then provides a class to interpret the results during the first few weeks of the program.

5.7. Directions for further research

Most importantly, it would be interesting to see how competencies actually are changeable in the scope of an MiM program or another business program? To what extent are personal development classes like the one performed in Harvard able to alternate KSAO competencies that were identified as hardly changeable in this research?

In this context, it might be interesting to find out to what extent top MiM programs actually develop competencies and to what extent their function is in selecting the best bachelor students. Depending on the outcome of this research, one could answer the question whether it makes more sense to join a master program of two years (long) or rather one of one year (short)?

6. BIBLIOGRAFIA

Barrick, M. R., & Mount, M. K. (1991). The Big Five personality dimensions and job performance: A meta-analysis. *Personnel Psychology , 44*, 1-26.

Barrick, M. R., Mount, M. K., & Judge, T. A. (2001). Personality and performance at the beginning of the new millennium: What do we know and where do we go next? *International Journal of Selection and Assessment , 9*, 9–30.

Bartlett, C., & Ghoshal, S. (1989). *Managing Across Borders: The Transnational Solution.* Boston, MA: Harvard Business School Press.

Bartlett, C., & Ghoshal, S. (1992). What is a global manager? *Harvard Business Review , 70* (5), 124-132.

Bassi, L. J., & Russ-Eft, D. F. (1997). *Assessment, development, and measurement.* Alexandria, VA: American Society for Training & Development.

BBC. (2011, March 10). *Record number of international students*. Retrieved May 30, 2011, from BBC News Business: http://www.bbc.co.uk/news/business-12671198

Black, J., Morrison, A., & Gregersen, H. (1999). *Global Explorers: The Next Generation of Leaders.* New York: Routledge.

Boyatzis, R. (1982). *The competent manager.* New York: Wiley.

Brake, T. (1997). *The Global Leader. Critical Factors for Creating The World Class Organization.* Chicago, IL: Irwin Professional Publishing.

Briscoe, J., & Hall, D. (1999). Grooming and picking leaders using competency frameworks: do they work? An alternative approach and new guidelines for practice. *Organizational Dynamics* , 37-52.

Bücker, J., & Poutsma, E. (2010). Global management competencies: a theoretical foundation. *Journal of Managerial Psychology , 25* (8), 829-844.

Button, S., Mathieu, J., & Zajac, D. (1996). Goal orientation in organizational research: a conceptual and empirical foundation. *Organizational Behavior & Human Decision Processes , 67*, 26-48.

Caligiuri. (2006). Developing global leaders. *Human Resource Management Review , 16*, 219-228.

Caligiuri. (2004). Global leadership development through expatriate assignments and other international experiences. *Expatriate Management: New Directions and Pertinent Issues .*

Caligiuri. (2000). Selecting expatriates for personality characteristics: A moderating effect of personality on the relationship between host national contact and cross-cultural adjustment. *40* (1), 61-80.

Caligiuri, P., & Di Santo, V. (2001, September). Global Competence: what is it and can it be developed through global assignments? *Human Resource Planning .*

Campion, M., Fink, A., Ruggeberg, B., Carr, L., Phillips, G., & Odman, R. (2011). Doing Competencies Well: Best Practices in Competency Modeling. *Personnel Psychology , 64*, 225-262.

Cardy, R. L., & Selvarajan, T. T. (2006). Competencies: Alternative frameworks for competitive advantage. *Business Horizons , 49*, 235-245.

Carver Jr., M., & King, T. (1994). An Empirical Investigation of the MBA Admission Criteria for Nontraditional Programs. *Journal of Education for Business , 70* (2), 95-98.

Clark, N. (2004). France. *World Education News & Reviews , 17* (2).

Conner, J. (2000). Developing the global leaders of tomorrow. *Human Resource Management , 39* (2 & 3), 147-157.

Costa, P. T., & McCrae, R. R. (1992). Four ways five factors are basic. *Personality and Individual Differences , 13*, 653-665.

Costa, P. T., & McCrae, R. R. (1992). *Revised NEO Personality Inventory and NEO Five Factor Inventory Professional manual.* Odessa, FL: Psychological Assessment Resources.

Council of Europe. (2001). *Council of Europe.* Retrieved 05 30, 2011, from Common European Framework of Reference for Languages: Learning, Teaching, Assessment (CEFR): http://www.coe.int/T/DG4/Linguistic/CADRE_EN.asp#TopOfPage

Deckro, R., & Woundenberg, H. (1977). M.B.A. admission criteria and academic success. *Decision Sciences , 8* (4), 765-769.

Delamare le Deist, F., & Winterton, J. (2005). What Is Competence? *Human Resource Development International , 8* (1), 27-46.

Dweck, C. S., & Leggett, E. (1988). A social cognitive approach to motivation and personality. *Psychological Review , 95*, 256-273.

Dweck, C. S., Chiu, C., & Hong, Y. (1995). Implicit theories and their role in judgments and reactions: a world from two perspectives. *Psychological Inquiry , 6*, 267-285.

Edmondson, A. C. (2008). The Competitive Imperative of Learning. *Harvard Business Review ,* 1-10.

EQUIS. (2011, January). *Standards and Criteria, Chapter 3: Students.* Retrieved April 29, 2011, from European Quality Improvement System (EQUIS): http://www.efmd.org/index.php/accreditation-/equis/equis-documents

Eraut, M., Alderton, J., Cole, G., & Senker, P. (1998). *Development of knowledge and skills in employment. Final report of a research project funded by The Learning Society Programme of the Economic and Social Research Council, Brighton, University of Sussex.* Sussex.

Erdley, C., Loomis, C., Cain, K., & Dumas-Hines, F. (1997). Relations among children's social goals, implicit personality theories, and responses to social failure. *Developmental Psychology , 33*, 263-272.

ETS. (2011). *ETS - TOEFL.* Retrieved 05 30, 2011, from About the test: http://www.ets.org/toefl/ibt/about/

ETS. (2011). *Mapping TOEFL iBT on the Common European Framework of Reference.* Retrieved 05 30, 2011, from ETS - TOEFL: http://www.ets.org/Media/Research/pdf/CEF_Mapping_Study_Interim_Report.pdf

European Commission. (1999). *The Bologna Declaration - on the European space for higher education: an explanation.* Bologna: European Commission.

European Foundation for Management Development. (2011). *EQUIS.* Retrieved May 11, 2011, from EQUIS: http://www.efmd.org/index.php/accreditation-/equis

Evans, P., Pucik, V., & Barsoux, J.-L. (2002). *The Global Challenge: Frameworks for International Human Resource Management.* Boston, MA: McGraw-Hill Irwin.

Financial Times. (2010). *Masters in management 2010.* Retrieved from Financial Times Business School Rankings: http://rankings.ft.com/businessschoolrankings/masters-in-management

Fisher, G. (1988). *Mindsets: The role of culture and perception in international relations.* Yarmouth: Intercultural Press.

Fleishman, E., & Quaintance, M. (1984). *Taxonomies of Human Performance.* Potomac, MD: Management Research Institute.

Fleishman, E., & Reilly, M. (1992). *Handbook of Human Abilities.* Palo Alto, CA: Consulting Psychologists Press.

GMAC. (2011). *Test structure and overview*. Retrieved 05 30, 2011, from MBA.com - The Official GMAT Web Site: http://www.mba.com/the-gmat/test-structure-and-overview.aspx

Goffin, R., & Woycheschin, D. (2006). An Empirical Method of Determining Employee Competencies/KSAOs From Task-Based Job Analysis. *Military Psychology , 18* (2), 121-130.

Goldberg, L. R. (2001). *Frozen by success: Why we don't know nearly enough about the relations between personality attributes and academic performance.* Princeton, NJ: Remarks delivered at the E.T.S. Workshop: Applications to new constructs, Educational Testing Service.

Goleman, D. (1998). What makes a leader. *Harvard Business Review , 76* (6), 93-103.

Graf, T. (2011). *Same, same, but different: Overview on Masters in Management (MIM).* Retrieved May 11, 2011, from MiM Compass: http://www.mim-compass.com/Master-in-Management-MBA

Gregersen, H. B., Morrison, A. J., & Black, J. S. (1998). Developing leaders for the global frontier. *Sloan Management Review*, 21-32.

Gregresen, H. B., Morrison, A. J., & Mendenhall, M. E. (2000). The role of training in developing global leaders: a case study at TRW Inc. *Human Resource Management*, *39* (2-3), 185-194.

Harris, P. R., & Moran, R. T. (1987). Managing Cultural Differences. *Gulf Publishing Company*, *2*.

Hirsh, W., & Strebler, M. (1994). *Gower Handbookof Management Development.* Gower, Aldershot.

Hogan, R. (1986). *Hogan Personality Inventory.* Minneapolis, MN: National Computer Systems.

Johansson, J. K. (2000). *Global Marketing: Foreign Entry, Local Marketing and Global Management.* Boston, MA: Harvard Business School Press.

Jokinen, T. (2005). Global leadership competencies: a review and discussion. *Journal of European Industrial Training*, *29* (3), 199-216.

Kets de Vries, M., & Mead, C. (1992). The development of the global leader within the multinational corporation. In V. Pucik, N. M. Tichy, & C. K. Barnett, *Globalizing Management. Creating and Leading the Competitive Organization.* New York: John Wiley & Sons.

Kmieciak, P. (1976). *Wertstrukturen und Wertwandel in der Bundesrepublik Deutschland. Grundlagen einer interdisziplinären empirischen Wertforschung mit einer Sekundäranalyse von Umfragedaten.* Göttingen: Schwartz.

Kotter, J. (1990). *A Force for Change: How Leadership Differs From Management.* New York: Free Press.

Landy, F., & Conte, J. (2004). *Work in the 21st Century.* New York: McGraw-Hill.

Levy, O., Beechler, S., Taylor, S., & Boyacigiller, N. A. (2007). What we talk about when we talk about 'global mindset': Managerial cognition in multinational corporations. *Journal of International Business Studies*, *38*, 231-258.

Lizzio, A., & Wilson, K. (2004). Action learning in higher education: an investigation of its potential to develop professional capability. *Studies in Higher Education , 29*, 469-488.

Maurer, T., Wrenn, K., Pierce, H., Tross, S., & Collins, W. (2003). Beliefs about 'improvability' of career-relevant skills: relevance to job/task analysis, competency modelling, and learning orientation. *Journal of Organizational Behavior , 24*, 107-131.

McCall, M. W., Lombardo, M., & Morrison, A. (1988). *The lessons of experience.* Boston: Lexington Books.

McClelland, D. (1973). Testing for competence rather than for "Intelligence". *American Psychologist , 28*, 1-14.

McKenna, S. (1998). Cross-cultural attitudes towards leadership dimensions. *Leadership & Organization Development Journal* , 106-112.

Mendenhall, M. E., & Osland, J. S. (2002). An overview of the extant global leadership research. *Symposium presentation.* Puerto Rico: Academy of International Business.

Mendenhall, M. (2006). The Elusive, yet Critical Challenge of Developing Global Leaders. *European Management Journal , 24* (6), 422-429.

Messick, S. (1984). The psychology of educational measurement. *Educational Measurement , 21*, 215-237.

MINES ParisTech. (2011). *International Professional Ranking of Higher Education Institutions - Survey 2011*. Retrieved June 24, 2011, from http://www.mines-paristech.fr/Actualites/PR/Ranking2011EN-Fortune2010.pdf

Morrison, A. (2000). Developing a global leadership model. *Human Resource Management , 39* (2-3), 117-132.

Osland, J., Bird, A., Mendenhall, M., & Osland, A. (2007). Developing global leadership capabilities and global mindset. In Stahl, & Bjorkmann, *Handbook of Research in International Human Resource Management.* Cheltenham: Edward Elgar.

Oxford Dictionaries. (2011). Retrieved May 07, 2011, from http://oxforddictionaries.com/

Perlmutter, H. (1969). The tortuous evolution of the multinational corporation. *Colombia Journal of World Business , 4* (1), 9-18.

Rhinesmith, S. H. (1992). Global Mindsets for Global Managers. *Training & Development* , 63-68.

Rodriquez, D., Patel, R., Bright, A., & Gregory, D. (2002). Developing competency models to promote integrated human resources. *Human Resource Management , 41* (3), 309-324.

Salgado, J. (1997). The five-factor model of personality and job performance in the European Community. *Journal of Applied Psychology , 82*, 30-43.

Sandberg, J. (2000). Understanding human competence at work: An interpretative approach. *Academy of Management Journal , 43*, 9-25.

Schein, E. H. (1985). *Career Anchors – Discovering Your Real Values.* San Francisco, CA: Jossey-Bass/Pfeiffer.

Schippmann, J. S., Ash, R. A., Battista, M., Carr, L., Eyde, L., Hesketh, B., et al. (2000). The practice of competency modeling. *Personnel Psychology* (53), 703-740.

Shapiro, H., & Gould, S. (1980). An empirical study of predictive models of success in graduate admissions. *Proceedings of the Twelfth Annual Meeting of the American Institute of Decision Sciences*, (pp. 130-131). Las Vegas, NV.

Snow, R., & Cronbach, L. (1977). *Aptitudes and Instructional Methods: A Handbook for Research on Interactions.* New York: Irvington.

Spencer, L. M., & Spencer, S. M. (1993). *Competence at work. Models for superior performance.* New York: John Wiley & Sons.

Spreitzer, G. M., McCall, J. M., & Mahoney, J. D. (1997). The early identification of International Executives. *Journal of Applied Psychology , 82*, 6-29.

Srinivas, K. (1995). Globalization of business and the Third World: Challenge of expanding the mindsets. *Journal of Management Development , 14* (3), 26-49.

Stroh, L., & Caligiuri, P. (1998). Strategic human resources: a new source for competitive advantage in the global arena. *International Journal of Human Resource Management , 9* (1), 1-17.

Suutari, V. (2002). Global leader development: An emerging research agenda. *Career Development International , 7* (4), 218-233.

Trapmann, S., Hell, B., Hirn, J.-O. W., & Schuler, H. (2007). Meta-Analysis of the Relationship Between the Big Five and Academic Success at University. *Zeitschrift fuer Psychologie , 215* (2), 132-151.

Vloeberghs, D., & Macfarlane, A. (2007). A Working Paper on Global Leadership Development. *The Eighth International Conference on HRD Research & Practice Across Europe*, (pp. 1-12).

Woodruffe, C. (1992). What is meant by competency? In R. Boam, & P. Sparrow, *Designing and achieving competency.* New York: McGraw-Hill.

Yip, G. S. (1992). *The Global Strategy: Managing for Worldwide Competitive Advantage.* Englewood Cliffs, NJ: Prentice-Hall.

7. ANNEX – LIST OF MIM SCHOOLS, PROGRAM NAMES, WEB SITES AND EMAIL ADDRESSES

All websites were accessed between May 25, 2011 and May 30, 2011.

Name of business school	Country of origin	MiM program name	Web site	Email address of admission office or responsible	Telephone number of admission office or responsible
ESCP Europe	France	Master in Management	http://www.escpeurope.eu/escp-europe-programmes/master-in-management/welcome-to-the-escp-europe-master-in-management-first-in-financial-times-global-ranking-2010/	sophia.oberhuber@escpeurope.de	Dipl.-Kffr. Sophia Oberhuber, MSc Programmmanagement Telefon ++49-30-3 20 07-185
Cems	N/A	Masters in International Management	http://www.cems.org/mim	roland.siegers@cems.org	Roland Siegers Tel.: +49 5482 92 91 89
HEC Paris	France	MSc in Management	http://www.hec.edu/MSc/Programs/MSc-in-Management-Grande-Ecole	msc@hec.fr	Admission office Britta Delhay: (00 33) 1 39 67 96 95 Nancy Piacentini: (00 33) 1 39 67 73 52
Universität St. Gallen	Switzerland	Master in Strategy and International Management	http://www.unisg.ch/Studium/Master/StrategyAndInternationalManagement.aspx	sim@unisg.ch	Odise Mattle +41 (0)71 224 23 67
Grenoble	France	Master in	http://www.grenoble-em.com/355-master-	admissions@ggsb.c	Elizabeth Gorrilla

Graduate School of Business		International Business	in-international-business-mib-2.aspx	om	+33 4 76 70 62 31
EM Lyon Business School	France	MSc in Management	http://graduate.em-lyon.com/en/MSc-in-Management	master@em-lyon.com	MSc in Management Tel.+33 (0) 4 78 33 77 83
London School of Economics and Political Science	U.K.	MSc in Management and Strategy	http://www2.lse.ac.uk/management/programmes/msc/management-and-strategy/home.aspx		+44 (0)20 7955 7160
Essec Business School	France	MSc in Management	http://www.essec.edu/programs/master-of-science-in-management.html	domeon@essec.fr	Elizabeth DEMARS tel. : + 33 (0) 1 34 43 32 59
Esade Business School	Spain	MSc in International Management	http://www.esade.edu/management/eng/programmes/master-international-management	josep.franch@esade.edu	Tel.: +34 935.543.513
Rotterdam School of Management, Erasmus University	Netherlands	MSc in International Management	http://www.rsm.nl/home/master/MSc_Programmes/CEMS	msc.admissions@rsm.nl	+31 (0)10 408 1280
WHU - Otto Beisheim School of Management	Germany	MSc in Management	http://www.whu.edu/cms/en/programs/master-of-science/	viktoria.thuir@whu.edu	Ms. Viktoria Thuir +49 (0) 261/6509-521
Mannheim Business School	Germany	MSc in Business Administration	http://www.bwl.uni-mannheim.de/en/study_programs/mmm/	masterinfo@bwl.uni-mannheim.de	+49 (0) 621-181-1421
Stockholm	France	MSc in Business	http://www.hhs.se/Education/MSc/MScBE/	international.admiss	+ 33 4 93 18 99 66

School of Economics		and Economics	Pages/default.aspx	ions@edhec.edu	
Edhec Business School	Sweden	MSc in Management	http://master-management.edhec.com/jsp/fiche_pagelibre.jsp?CODE=72740605&LANGUE=1	admission@hhs.se	+46 8 736 90 00
ESC Toulouse	France	MSc in Management	http://www.esc-toulouse.fr/en/p452_199/Master-program/introduction.html	a.mabilat@esc-toulouse.fr	Tél : +33 561 294 737
City University: Cass	U.K.	MSc in Management	http://www.cass.city.ac.uk/courses/masters/	a.fleming@city.ac.uk	+44 (0) 20 7040 8695
Audencia Nantes	France	Master in Management	http://www.audencia.com/master-management/	brethmel@audencia.com	+ 33 (0)2 40 37 46 50 + 33 (0)2 40 37 46 55
IAG-Louvain School of Management	Belgium	Master in Business Engineering	http://www.uclouvain.be/en-3084.html	Veronique.Mairiaux@uclouvain.be Kristina.Swaelens@uclouvain.be	+32 (0)10 47 21 72 (allg) 010 47 38 87 (Mairiaux) 010 47 40 09 (Swaelens)
Reims Management School	France	MSc in Management	http://www.supdeco-rms.com/en/master.html	pascale.baudemont@reims-ms.fr	Pascale BAUDEMONT + 33 (0)3 26 77 46 96
Copenhagen Business School	Denmark	MSc in Economics & Business Administration	http://www.cbs.dk/en/Degree-Programmes/CBS-Graduate/Kandidatuddannelser/MSc-in-Economics-Business-Administration	international.admissions@cbs.dk	
Rouen Business	France	MSc in	http://www.rouenbs.fr/en/programs/master-	ebw@rouenbs.fr	Elaine Bowman/Sarah

School		Management	grande-ecole/presentation		Burt '33 (0)2 32 82 47 05
WU (Vienna University of Economics and Business)	Austria	MSc in International Management	http://www.wu.ac.at/programs/en/master/cems	cems@wu-wien.ac.at	Univ.Prof. Dr. Björn Ambos Telephone: +43-1-31336-5121
Maastricht University	Netherlands	MSc International Business	http://www.maastrichtuniversity.nl/web/Faculties/SBE/TargetGroup/ProspectiveStudents/Master.htm	Sbs.admissions@strath.ac.uk	+44 (0)141 553 6049
University of Strathclyde Business School	U.K.	MSc Business and Management	http://www.strath.ac.uk/management/mbm	masteradmissions-sbe@maastrichtuniversity.nl	+31 43 388 3628 +31 43 388 3605
Imperial College Business School	Belgium	Master of Global Management	http://www.antwerpmanagementschool.be/programmes/programmes_by_type?opleiding=86&cat=44&url_type=type	cathy.boesmans@ams.ac.be	Cathy Boesmans '+32 (0)3 265 44 71
Universiteit Antwerpen Management School	U.K.	MSc in Management	http://www3.imperial.ac.uk/business-school/programmes/msc-management	s.togneri@ic.ac.uk	Steve Togneri +44 (0)20 7594 9208
Skema	France	MSc in Management	http://www.skema.edu/en/msc-management	jl.deherripon@skema.edu	Admissions Officers Doreth RUTTEN +33(0)3 20 21 59 69 Alice TARAYRE +33(0)4 93 95 32 79
Aalto University School of Economics	Finland	MSc in Economics and Business	http://studies.aalto.fi/en/admissions/business/master/	danaduda@alk.edu.pl	Dana Duda (+48 22) 51 92 269

		Administration			
Euromed Management	France	MSc in Management	http://grande-ecole.euromed-management.com/le-programme-esc/	priyanka.shah@euromed-management.com	Priyanka Shah + 33 (0) 491 827 746
Kozminski University	Poland	Master in Management	http://www.kozminski.edu.pl/index.php/en/graduate_ma/international_business_and_manag/	noora.venalainen@aalto.fi	Noora Venäläinen +358 9 470 38235
Università Bocconi	Italy	MSc in International Management	http://www.unibocconi.eu/wps/wcm/connect/SitoPubblico_EN/Navigation+Tree/Home/Schools+and+Programs/Graduate+School/Prospective+Students/International+Management/?lang=en	graduate.services@unibocconi.it	+39 (0) 25836.5930
Bem Bordeaux Management School	France	MSc in Management	http://www.bem.edu/en/Programmes/Graduate/MSc-in-Management-ESC-Grande-Ecole/Editorial-ESC	Sylvie.Grinvanhamel@unil.ch	Admissions Sylvie Grin van Hamel Tél. +41 21 692 33 09
HEC Lausanne	Switzerland	MSc in Management	http://www.hec.unil.ch/mscm	caroline.cabiro@bem.edu	Caroline Cabiro +33 (0) 5.56.84.22.34
Vlerick Leuven Gent Management School	Belgium	Master in General Management	http://www.vlerick.com/en/programmes/masters/g4/general-management-curriculum.html	laura.rampelberg@vlerick.com	+ 32 9 210 97 11
HHL-Leipzig GSM	Germany	MSc in Management	http://www.hhl.de/pt/master-of-science/	kathrin.schmager@hhl.de	Kathrin Schmager ' +49 341 9851-622
Aston Business School	U.K.	MSc in International Business	http://www1.aston.ac.uk/aston-business-school/programmes/postgraduate/msc-programmes/msc-international-business/	abs-msc@aston.ac.uk r.a.spurling@aston.	Robert Spurling +44 (0) 121 204 3029

				ac.uk	
NHH	Norway	MSc in Economics & Business Administration	http://www.nhh.no/en/study-at-nhh/master-programmes/master-in-international-business.aspx	admission@nhh.no	+47 55 95 95 95 (choose option 9) +47 55 95 93 97
University of Bath School of Management	U.K.	MSc in Management	http://www.bath.ac.uk/management/msc_management/	mscadmin@management.bath.ac.uk	+44 (0)1225 383757
University of Cologne, Faculty of Management	Germany	MSc in Business Administration	http://www.wiso-zulassung.uni-koeln.de/13033.html	wiso-zulassung@wiso.uni-koeln.de	
ICN Business School	France	MSc in Management	http://www.icn-groupe.fr/fr/formations/master/programme-icn-grande-ecole	wendy.bull@nottingham.ac.uk	+44 (0) 115 84 66488
Nottingham University Business School	U.K.	MSc in International Business	http://www.nottingham.ac.uk/business/msc/N102.html	Isabelle.montigny@icn-groupe.fr	+33 (0) 3 54 50 25 38
IAE Aix-en-Provence Graduate School of Management	France	MSc in General Management	http://www.iae-aix.com/en/iae/programmes-degrees/msc-s-degrees/master-of-science-2nd-year/general-management-english-track/	masters@iae-aix.com	Mireille GEMIN +33 (0)4 42 28 09 20
ESC Clermont	France	Master in Management	http://www.esc-clermont.fr/fr_htm/etud_candidats/masteres/mim.htm	admission@sgh.waw.pl	+48 22 564-96-53 or 54
Warsaw School of Economics	Poland	Master in International	http://www.sgh.waw.pl/inne/rekrutacja/system_rekrutacyjny/International_Business/	nicole.lecann@esc-clermont.fr	

		Business			
Eada	Spain	International Master in Management	http://int.eada-masters.com/international-master-in-management/international-master-in-management.php	bcamba@eada.edu	+34 934 520 844
Aarhus School of Business	Denmark	MSc in Economics and Business Administration	http://www.asb.dk/uddannelser/kandidat/kandidatuddannelsenierhvervsoekonomi/financeinternationalbusiness/	jeqv@asb.dk	Mr Jesper Qvistgaard +45 89 48 66 88 or 6393
ESC Tours-Poitiers (ESCEM)	France	MSc in Management	http://www.escem.fr/grande_ecole/	mvergnault@escem.fr	Maria Vergnault +33 5 49 60 58 58
Nyenrode Business Universiteit	Netherlands	MSc in Management	http://www.nyenrode.nl/Education/master-postmaster/msc/Pages/Default.aspx	info@nyenrode.nl	+31 (0)346 291 291
Bradford University School of Management	U.K.	MSc in Management	http://www.bradford.ac.uk/postgraduate/management/	msc.mgt@bradford.ac.uk	+44 (0) 1274 234321
TiasNimbas Business School, Tilburg University	Netherlands	MSc in International Business Administration	http://www.tiasnimbas.edu/Full-Time_International_MSc_in_Business_Administration/pgeId=316	w.wiersema@tiasnimbas.edu	Wilja Wiersema +31 13 466 39 60
Durham Business School	U.K.	MA in Management	http://www.dur.ac.uk/dbs/degrees/ma/programmes/management/	ma.admin@durham.ac.uk	+44 (0)191 334 5439
Faculdade de Economia of the	Portugal	Master in Management	http://www.novasbe.unl.pt/php/templates/nova_masters.php	leadyourfuture@novasbe.pt	Carolina Sales Fernanda Vicente

Universidade Nova de Lisboa					(+351) 21 380 16 38
University of Economics, Prague	Czech Republic	Master in Business Economics and Management	http://www.vse.cz/index-en.php	renata.subrtova@vse.cz	Renata Šubrtová +420 224 098 553
Brunel University	U.K.	MSc in Management	http://www.brunel.ac.uk/courses/postgraduate/N200PMGMT	dimitrios.koufopoulos@brunel.ac.uk	
University College Dublin: Smurfit	Ireland	MSc in International Business / Management	http://www.smurfitschool.ie/mastersprogrammes/internationalbusiness/mscininternationalbusiness/	smurfit.admissions@ucd.ie	+353 1 716 8885/4302/8058/4321
Lancaster University Management School	U.K.	MSc in Management	http://www.lums.lancs.ac.uk/masters/management/msc-management/	gms@lancaster.ac.uk	Karine Rennie-Bloor Tel: +44 (0)1524 510754
Corvinus University of Budapest	Hungary	MSc in Business Administration	http://isp.uni-corvinus.hu/index.php?id=29392	anna.szathmari@uni-corvinus.hu	Ms. Anna Szathmári Phone: +36.1.482.5516
BI Norwegian School of Management	Norway	MSc in Business and Economics	http://www.bi.no/en/Full-time/Masters/Master-of-Science-in-Business-and-Economics/	mara.dagestad@bi.no	Mara Dagestad +47 46 41 01 12
Politecnico di Milano School of Management	Italy	MSc in Management Engineering	http://www.polinternational.polimi.it/index.php?id=203	international.mi@polimi.it	

8. ANNEX – MAPPING THE ADMISSION PROCESSES INTO THE KSAO MODEL

		Explicitly stated admission criteria	Implicitly assessed admission criteria from process requirements
Knowledge	Cultural literacy	Cultural literacy, Cross-cultural communication skills	International profile mandatory or desired
	English language skills		Test for English (e.g. TOEFL), GMAT or GRE mandatory
	General knowledge	Breadth of knowledge/general culture	
	Global business understanding	Business understanding	Specific knowledge in same field required from undergraduate studies, work experience mandatory or desired
	Other foreign language skills		Test for second foreign language
Skills	Cross-cultural communication skills	Cross-cultural communication	
	Managing conflicts	Managing conflicts	
	Negotiation skills	Negotiation skills	
	Networking skills	Networking skills	
	Organizational skills	Organizational skills	
	Structuring	Structuring	
Abilities	Behavioral flexibility	Behavioral flexibility	
	Cognitive complexity	Cognitive complexity, critical faculty, memorization, intellectual ability	
	Interpersonal abilities	Interpersonal abilities, positive impact on others, social adaptability	Individual interview or group interview mandatory
	Logical reasoning	Analytical ability, logical thinking	Verbal and mathematical test mandatory
	Oral communication	Oral communication, communication skills, presentation skills	Individual interview or group interview mandatory

Abilities	Quantitative and mathematical ability	Mathematical skills	Verbal and mathematical test mandatory
	Reaction to criticism	Reaction to criticism	
	Stress tolerance	Stress tolerance	
	Teamwork ability	Teamwork ability	Group interview mandatory
	Written communication	Written communication	Motivation letter or questions mandatory
Personality traits	Creativity and innovation	Creativity and innovation	
	Determination to achieve	Determination to achieve	Recommendation letters mandatory
	Diligence	Diligence	
	Enterprising spirit/initiative	Enterprising spirit/initiative, Extracurricular activities	
	Hardiness	Hardiness	
	Integrity	Integrity	
	Intellectual curiosity	Intellectual curiosity	
	Motivation/drive	Motivation/drive, Focus on the task at hand, Commitment to Projects	Motivation letter or questions mandatory
	Openness to experience	Openness to experience	
	Responsibility/accountability	Responsibility/accountability, Decision-making skills	
	Self-awareness	Self-awareness	

9. ANNEX – WEB SITE RESEARCH ON ADMISSION CRITERIA – KNOWLEDGE

Name of business school and MiM program	Competencies assessed in admission process				
	Knowledge				
	Cultural Literacy	English language skills	General knowledge	Global business understanding	Other foreign language skills
ESCP Europe, Master in Management	■	■	■		■
Cems, Masters in International Management	■	■		■	■
HEC Paris, MSc in Management		■			
Universität St.Gallen, Master in Strategy and International Management	■	■		■	
Grenoble Graduate School of Business, Master in International Business	■	■		■	
EM Lyon Business School, MSc in Management		■			
London School of Economics and Political Science, MSc in Management and Strategy		■			
Essec Business School, MSc in Management	■	■		■	
Esade Business School, MSc in International Management		■		■	
Rotterdam School of Management, Erasmus University, MSc in International Management		■		■	
WHU - Otto Beisheim School of Management, MSc in Management	■	■		■	
Mannheim Business School, MSc in Business Administration	■	■		■	■
Edhec Business School, MSc in Management	■	■	■	■	
Stockholm School of Economics, MSc in Business and Economics	■	■			
ESC Toulouse, MSc in Management	■	■			
City University: Cass, MSc in Management		■			
Audencia Nantes, Master in Management		■			
IAG-Louvain School of Management, Master in Business Engineering		■			
Reims Management School, MSc in Management		■	■	■	
Copenhagen Business School, MSc in Economics & Business Administration		■		■	
Rouen Business School, MSc in Management		■	■		■
WU (Vienna University of Economics and Business), MSc in International Management	■	■		■	■

School / Programme					
Maastricht University, MSc International Business		X		X	
University of Strathclyde Business School, MSc Business and Management		X		X	
Universiteit Antwerpen Management School, Master of Global Management	X	X			
Imperial College Business School, MSc in Management	X	X		X	
Skema, MSc in Management		X			
Aalto University School of Economics, MSc in Economics and Business Administration		X		X	
Euromed Management, MSc in Management		X	X	X	X
Kozminski University, Master in Management		X			
Università Bocconi, MSc in International Management	X	X		X	
Bem Bordeaux Management School, MSc in Management		X	X	X	X
HEC Lausanne, MSc in Management		X		X	X
Vlerick Leuven Gent Management School, Master in General Management		X	X		
HHL-Leipzig GSM, MSc in Management		X		X	X
Aston Business School, MSc in International Business		X		X	
NHH, MSc in Economics & Business Administration		X		X	
University of Bath School of Management, MSc in Management		X			
University of Cologne, Faculty of Management, MSc in Business Administration	X	X		X	X
ICN Business School, MSc in Management		X	X	X	X
Nottingham University Business School, MSc in International Business		X			
IAE Aix-en-Provence Graduate School of Management, MSc in General Management		X			
ESC Clermont, Master in Management	X	X	X	X	
Warsaw School of Economics, Master in International Business		X			
Eada, International Master in Management		X			
Aarhus School of Business, MSc in Economics and Business Administration		X		X	
ESC Tours-Poitiers (ESCEM), MSc in Management	X	X	X	X	X
Nyenrode Business Universiteit, MSc in Management	X	X			
Bradford University School of Management, MSc in Management		X		X	
TiasNimbas Business School, Tilburg University, MSc in International Business Administration	X	X		X	

Durham Business School, MA in Management		▨			
Faculdade de Economia of the Universidade Nova de Lisboa, Master in Management		▨			
University of Economics, Prague, Master in Business Economics and Management	▨	▨		▨	▨
Brunel University, MSc in Management		▨		▨	
University College Dublin: Smurfit, MSc in International Business / Management		▨		▨	
Lancaster University Management School, MSc in Management		▨		▨	
Corvinus University of Budapest, MSc in Business Administration		▨		▨	
BI Norwegian School of Management, MSc in Business and Economics		▨		▨	
Politecnico di Milano School of Management, MSc in Management Engineering		▨		▨	
59	20	59	10	41	14
(Total number of MiM programs in the sample)	34%	100%	17%	69%	24%

10. ANNEX – WEB SITE RESEARCH ON ADMISSION CRITERIA – SKILLS

Name of business school and MiM program	Competencies assessed in admission process					
	Skills					
	Cross-cultural communication skills	Managing conflicts	Negotiation skills	Networking skills	Organizational skills	Structuring
ESCP Europe, Master in Management	■					■
Cems, Masters in International Management	■					
HEC Paris, MSc in Management						
Universität St.Gallen, Master in Strategy and International Management						
Grenoble Graduate School of Business, Master in International Business	■					
EM Lyon Business School, MSc in Management						
London School of Economics and Political Science, MSc in Management and Strategy						
Essec Business School, MSc in Management						
Esade Business School, MSc in International Management					■	
Rotterdam School of Management, Erasmus University, MSc in International Management						
WHU - Otto Beisheim School of Management, MSc in Management		■				
Mannheim Business School, MSc in Business Administration						
Edhec Business School, MSc in Management					■	
Stockholm School of Economics, MSc in Business and Economics	■				■	
ESC Toulouse, MSc in Management						
City University: Cass, MSc in Management						
Audencia Nantes, Master in Management						
IAG-Louvain School of Management, Master in Business Engineering						
Reims Management School, MSc in Management						■
Copenhagen Business School, MSc in Economics & Business Administration						
Rouen Business School, MSc in Management						■
WU (Vienna University of Economics and Business), MSc in International Management						

	1	2	3	4	5	6
Maastricht University, MSc International Business						
University of Strathclyde Business School, MSc Business and Management						
Universiteit Antwerpen Management School, Master of Global Management		■			■	
Imperial College Business School, MSc in Management		■			■	
Skema, MSc in Management						
Aalto University School of Economics, MSc in Economics and Business Administration						
Euromed Management, MSc in Management						■
Kozminski University, Master in Management						
Università Bocconi, MSc in International Management						
Bem Bordeaux Management School, MSc in Management						■
HEC Lausanne, MSc in Management						
Vlerick Leuven Gent Management School, Master in General Management		■				
HHL-Leipzig GSM, MSc in Management						■
Aston Business School, MSc in International Business						
NHH, MSc in Economics & Business Administration						
University of Bath School of Management, MSc in Management						
University of Cologne, Faculty of Management, MSc in Business Administration						
ICN Business School, MSc in Management						■
Nottingham University Business School, MSc in International Business					■	
IAE Aix-en-Provence Graduate School of Management, MSc in General Management						
ESC Clermont, Master in Management						■
Warsaw School of Economics, Master in International Business						
Eada, International Master in Management			■		■	
Aarhus School of Business, MSc in Economics and Business Administration						
ESC Tours-Poitiers (ESCEM), MSc in Management						■
Nyenrode Business Universiteit, MSc in Management						
Bradford University School of Management, MSc in Management					■	
TiasNimbas Business School, Tilburg University, MSc in International Business Administration	■					

Durham Business School, MA in Management						
Faculdade de Economia of the Universidade Nova de Lisboa, Master in Management						
University of Economics, Prague, Master in Business Economics and Management						
Brunel University, MSc in Management						
University College Dublin: Smurfit, MSc in International Business / Management						
Lancaster University Management School, MSc in Management						
Corvinus University of Budapest, MSc in Business Administration						
BI Norwegian School of Management, MSc in Business and Economics						
Politecnico di Milano School of Management, MSc in Management Engineering						
59	5	4	1	0	9	10
(Total number of MiM programs in the sample)	8%	7%	2%	0%	15%	17%

11. ANNEX – WEB SITE RESEARCH ON ADMISSION CRITERIA – ABILITIES

Name of business school and MiM program	Competencies assessed in admission process									
	Abilities									
	Behavioral Flexibility	Cognitive Complexity	Interpersonal abilities	Logical reasoning	Oral communication	Quantitative and mathematical ability	Reaction to criticism	Stress tolerance	Teamwork Ability	Written communication
ESCP Europe, Master in Management	■		■	■	■	■			■	■
Cems, Masters in International Management	■	■	■	■						■
HEC Paris, MSc in Management			■	■	■	■				
Universität St.Gallen, Master in Strategy and International Management				■		■				■
Grenoble Graduate School of Business, Master in International Business				■		■				■
EM Lyon Business School, MSc in Management			■	■	■					
London School of Economics and Political Science, MSc in Management and Strategy		■		■						■
Essec Business School, MSc in Management		■	■	■					■	
Esade Business School, MSc in International Management			■	■	■				■	■
Rotterdam School of Management, Erasmus University, MSc in International Management			■	■	■	■			■	■
WHU - Otto Beisheim School of Management, MSc in Management			■	■	■	■			■	

Mannheim Business School, MSc in Business Administration				■		■				
Edhec Business School, MSc in Management			■	■		■			■	■
Stockholm School of Economics, MSc in Business and Economics				■		■			■	■
ESC Toulouse, MSc in Management		■	■	■	■	■			■	
City University: Cass, MSc in Management				■	■	■				■
Audencia Nantes, Master in Management			■	■	■	■				
IAG-Louvain School of Management, Master in Business Engineering				■		■				■
Reims Management School, MSc in Management	■	■	■	■	■	■			■	
Copenhagen Business School, MSc in Economics & Business Administration										■
Rouen Business School, MSc in Management	■	■	■	■	■	■			■	
WU (Vienna University of Economics and Business), MSc in International Management			■	■	■	■				■
Maastricht University, MSc International Business				■		■				■
University of Strathclyde Business School, MSc Business and Management					■					
Universiteit Antwerpen Management School, Master of Global Management			■	■	■	■			■	■
Imperial College Business School, MSc in Management			■	■	■				■	
Skema, MSc in Management			■	■	■	■				
Aalto University School of Economics, MSc in Economics and Business Administration			■		■					■
Euromed Management, MSc in Management	■	■	■	■	■	■			■	■

School / Programme												
Kozminski University, Master in Management			X		X							
Università Bocconi, MSc in International Management		X		X		X						X
Bem Bordeaux Management School, MSc in Management	X	X	X	X	X						X	X
HEC Lausanne, MSc in Management		X		X	X	X					X	X
Vlerick Leuven Gent Management School, Master in General Management			X	X	X	X						X
HHL-Leipzig GSM, MSc in Management	X	X									X	
Aston Business School, MSc in International Business				X		X						
NHH, MSc in Economics & Business Administration				X								X
University of Bath School of Management, MSc in Management			X		X						X	
University of Cologne, Faculty of Management, MSc in Business Administration				X		X						X
ICN Business School, MSc in Management	X	X	X	X	X						X	X
Nottingham University Business School, MSc in International Business			X		X						X	
IAE Aix-en-Provence Graduate School of Management, MSc in General Management			X									X
ESC Clermont, Master in Management		X										X
Warsaw School of Economics, Master in International Business												
Eada, International Master in Management			X	X	X	X	X				X	X
Aarhus School of Business, MSc in Economics and Business Administration			X		X							
ESC Tours-Poitiers (ESCEM), MSc in Management	X	X	X	X	X					X	X	X

Nyenrode Business Universiteit, MSc in Management		■	■	■	■	■				■
Bradford University School of Management, MSc in Management			■	■						■
TiasNimbas Business School, Tilburg University, MSc in International Business Administration			■	■		■			■	■
Durham Business School, MA in Management		■		■						
Faculdade de Economia of the Universidade Nova de Lisboa, Master in Management										
University of Economics, Prague, Master in Business Economics and Management	■		■	■				■	■	
Brunel University, MSc in Management				■						■
University College Dublin: Smurfit, MSc in International Business / Management										■
Lancaster University Management School, MSc in Management										■
Corvinus University of Budapest, MSc in Business Administration			■		■				■	
BI Norwegian School of Management, MSc in Business and Economics				■		■				■
Politecnico di Milano School of Management, MSc in Management Engineering										■
59	10	16	33	49	41	43	1	2	24	44
(Total number of MiM programs in the sample)	17%	27%	56%	83%	69%	73%	2%	3%	41%	75%

12. ANNEX – WEB SITE RESEARCH ON ADMISSION CRITERIA – PERSONALITY TRAITS

Name of business school and MiM program	Competencies assessed in admission process									
	Personality traits									
	Creativity and innovation	Determination to achieve	Enterprising spirit/initiative	Hardiness	Integrity	Intellectual curiosity	Motivation /drive	Openness to experience	Responsibility/accountability	Self-awareness
ESCP Europe, Master in Management		X	X							X
Cems, Masters in International Management		X			X	X	X	X	X	X
HEC Paris, MSc in Management		X								
Universität St.Gallen, Master in Strategy and International Management		X	X				X			
Grenoble Graduate School of Business, Master in International Business		X	X				X			
EM Lyon Business School, MSc in Management		X								
London School of Economics and Political Science, MSc in Management and Strategy		X					X			
Essec Business School, MSc in Management	X	X	X		X		X		X	X
Esade Business School, MSc in International Management	X	X								X
Rotterdam School of Management, Erasmus University, MSc in International Management		X					X			
WHU - Otto Beisheim School of Management, MSc in Management	X	X	X				X		X	X
Mannheim Business School, MSc in Business Administration			X							
Edhec Business School, MSc in Management	X	X	X			X	X			X

	1	2	3	4	5	6	7	8	9	10
Stockholm School of Economics, MSc in Business and Economics	■	■	■			■	■			■
ESC Toulouse, MSc in Management	■	■					■		■	■
City University: Cass, MSc in Management		■								
Audencia Nantes, Master in Management		■								
IAG-Louvain School of Management, Master in Business Engineering							■			
Reims Management School, MSc in Management	■	■	■				■		■	■
Copenhagen Business School, MSc in Economics & Business Administration							■			
Rouen Business School, MSc in Management	■	■	■				■		■	■
WU (Vienna University of Economics and Business), MSc in International Management		■								
Maastricht University, MSc International Business							■			
University of Strathclyde Business School, MSc Business and Management		■	■							■
Universiteit Antwerpen Management School, Master of Global Management		■	■				■			■
Imperial College Business School, MSc in Management		■							■	■
Skema, MSc in Management		■								
Aalto University School of Economics, MSc in Economics and Business Administration							■			
Euromed Management, MSc in Management	■	■	■				■		■	■
Kozminski University, Master in Management		■								
Università Bocconi, MSc in International Management							■			

School / Programme	1	2	3	4	5	6	7	8	9	10
Bem Bordeaux Management School, MSc in Management	■	■	■				■		■	■
HEC Lausanne, MSc in Management		■	■						■	■
Vlerick Leuven Gent Management School, Master in General Management		■					■			■
HHL-Leipzig GSM, MSc in Management	■									■
Aston Business School, MSc in International Business		■								
NHH, MSc in Economics & Business Administration		■					■			
University of Bath School of Management, MSc in Management		■			■		■			■
University of Cologne, Faculty of Management, MSc in Business Administration										
ICN Business School, MSc in Management	■	■	■				■		■	■
Nottingham University Business School, MSc in International Business										
IAE Aix-en-Provence Graduate School of Management, MSc in General Management		■					■			
ESC Clermont, Master in Management			■				■			■
Warsaw School of Economics, Master in International Business										
Eada, International Master in Management		■	■				■			
Aarhus School of Business, MSc in Economics and Business Administration										
ESC Tours-Poitiers (ESCEM), MSc in Management	■	■	■		■	■	■	■	■	■
Nyenrode Business Universiteit, MSc in Management			■				■			■
Bradford University School of Management, MSc in Management	■	■					■			

Program	1	2	3	4	5	6	7	8	9	10
TiasNimbas Business School, Tilburg University, MSc in International Business Administration		■					■			
Durham Business School, MA in Management										
Faculdade de Economia of the Universidade Nova de Lisboa, Master in Management			■							
University of Economics, Prague, Master in Business Economics and Management			■				■		■	■
Brunel University, MSc in Management		■	■				■			
University College Dublin: Smurfit, MSc in International Business / Management							■			
Lancaster University Management School, MSc in Management		■					■			
Corvinus University of Budapest, MSc in Business Administration		■	■				■			■
BI Norwegian School of Management, MSc in Business and Economics							■			
Politecnico di Milano School of Management, MSc in Management Engineering		■					■			
59	14	41	24	0	4	4	41	2	13	25
(Total number of MiM programs in the sample)	24%	69%	41%	0%	7%	7%	69%	3%	22%	42%

13. ANNEX – ONLINE SURVEY

From: LEHMANN, Julian <julian.lehmann@hec.edu>

Date: Mon, May 23, 2011 at 1:11 AM

Subject: Research on global leadership

Dear Madam or Sir,

I am a final year double degree master student at HEC Paris and Fundação Getulio Vargas São Paulo. I am currently contributing to a research paper on EUROPEAN BUSINESS SCHOOLS AND GLOBAL LEADERSHIP. This study is the first of its kind to connect research on global leadership development and the role of the most prestigious business schools like yours.

In your function as graduate admission officer for master students at your university, I would like you to take part in an extremely short survey of only 7 questions admission criteria for Europe's top master programs ranked in Financial Times (Master in Management). These questions only take 5 minutes to answer and I would greatly appreciate your input!

Please find the online survey here:

http://www.surveymonkey.com/s/8YGKB8V

Confidentiality:

We understand the confidentiality of your processes and commit ourselves to treating all data with extreme confidentiality and for purely academic research purposes only. Furthermore, published data will only include average results and thus, will not in any way reveal information about your university.

Dates:

Answering the survey until the May 30, 2011 would be highly appreciated.

For any questions, feel free to call (+55 (11) 8167 1228) or email (julian.lehmann@hec.edu) me. I am looking forward to hearing from you, many thanks for your time.

Best regards,

--

Julian Lehmann

HEC Paris & Fundação Getulio Vargas São Paulo

Av. Nove de Julho 2029

CEP 01313-902, Bela Vista, São Paulo, Brazil

Cell: +55 (11) 8167 1228

Flagship master admission process   Exit this survey

*For the admission to your master program that is ranked by Financial Times, do you use a formalized system with predefined categories in which applicants score points?

- ◯ Yes
- ◯ No
- ◯ Partly (specify)

[   ]

*Who is responsible for the final admission decision?

- ◯ Program coordinator
- ◯ Admission office director
- ◯ Admission office team

Other (please specify)

[   ]

✱ Which of the following KNOWLEDGE-related items are EXPLICITLY measured during the scoring process? Tick K/O additionally if there is a minimum requirement and candidates who do not fulfil it are kicked out of the process.

	Measured by a test	Measured by submitted documentation	Measured by personal interaction	Measured by recommendation letter(s)	Not measured	K/O
English language	☐	☐	☐	☐	☐	☐
Other foreign language	☐	☐	☐	☐	☐	☐
Management/Business (e.g. relevant degree or credits)	☐	☐	☐	☐	☐	☐
Cultural knowledge (e.g. international experience)	☐	☐	☐	☐	☐	☐
General knowledge	☐	☐	☐	☐	☐	☐

Other (please specify)

[   ]

✱ Which of the following SKILLS are EXPLICITLY measured during the scoring process? Tick K/O additionally if there is a minimum requirement and candidates who do not fulfil it are kicked out of the process.

	Measured by a test	Measured by submitted documentation	Measured by personal interaction	Measured by recommendation letter(s)	Not measured	K/O
Managing conflicts	☐	☐	☐	☐	☐	☐
Cross-cultural communication skills	☐	☐	☐	☐	☐	☐
Negotiation skills	☐	☐	☐	☐	☐	☐
Networking skills	☐	☐	☐	☐	☐	☐
Organisational skills	☐	☐	☐	☐	☐	☐
Structuring skills	☐	☐	☐	☐	☐	☐

Other (please specify)

[   ]

✱ Which of the following ABILITIES are EXPLICITLY measured during the scoring process? Tick K/O additionally if there is a minimum requirement and candidates who do not fulfil it are kicked out of the process.

	Measured by a test	Measured by submitted documentation	Measured by personal interaction	Measured by recommendation letter(s)	Not measured	K/O
Interpersonal abilities	☐	☐	☐	☐	☐	☐
Teamwork ability	☐	☐	☐	☐	☐	☐
Oral communication	☐	☐	☐	☐	☐	☐
Written communication	☐	☐	☐	☐	☐	☐
Process quantitative information (e.g. in GMAT)	☐	☐	☐	☐	☐	☐
Process verbal information (e.g. in GMAT)	☐	☐	☐	☐	☐	☐
Perceive complex issues	☐	☐	☐	☐	☐	☐
Recognize underlying issues and relationships	☐	☐	☐	☐	☐	☐
Behavioral flexibility/ adaptability	☐	☐	☐	☐	☐	☐
Reaction to criticism	☐	☐	☐	☐	☐	☐
Stress tolerance	☐	☐	☐	☐	☐	☐

Other (please specify)

✱**Which of the following PERSONALITY TRAITS are EXPLICITLY measured during the scoring process? Tick K/O additionally if candidates who do not show the respective criterion are kicked out of the process.**

	Measured by test	Measured by submitted documentation	Measured by personal interaction	Measured by recommendation letter(s)	K/O	Not measured
Creativity and innovation	☐	☐	☐	☐	☐	☐
Determination to achieve an objective	☐	☐	☐	☐	☐	☐
Enterprising spirit/initiative	☐	☐	☐	☐	☐	☐
Hardiness	☐	☐	☐	☐	☐	☐
Integrity	☐	☐	☐	☐	☐	☐
Intellectual curiosity	☐	☐	☐	☐	☐	☐
Motivation/drive	☐	☐	☐	☐	☐	☐
Openness	☐	☐	☐	☐	☐	☐
Responsibility	☐	☐	☐	☐	☐	☐
Self-Awareness	☐	☐	☐	☐	☐	☐

Other (please specify)

[_____]

Do you have any comments or remarks on your admission process refering to the questions above?

[_____]

If you want, state the name of your university:

[_____]

[Prev] [Done]

Response Summary

PAGE: 2

1. For the admission to your master program that is ranked by Financial Times, do you use a formalized system with predefined categories in which applicants score points?   Create Chart   Download

		Response Percent	Response Count
Yes		50.0%	8
No		18.8%	3
Partly (specify) Show Responses		31.3%	5
		answered question	16
		skipped question	0

2. Who is responsible for the final admission decision?   Create Chart   Download

		Response Percent	Response Count
Program coordinator		50.0%	8
Admission office director		25.0%	4
Admission office team		25.0%	4
		Other (please specify) Show Responses	5
		answered question	16
		skipped question	0

3. Which of the following KNOWLEDGE-related items are EXPLICITLY measured during the scoring process? Tick K/O additionally if there is a minimum requirement and candidates who do not fulfil it are kicked out of the process.   ⊙ Create Chart   ⬇ Download

	Measured by a test	Measured by submitted documentation	Measured by personal interaction	Measured by recommendation letter(s)	Not measured	K/O	Response Count
English language	75.0% (12)	31.3% (5)	25.0% (4)	0.0% (0)	0.0% (0)	75.0% (12)	16
Other foreign language	12.5% (2)	31.3% (5)	12.5% (2)	0.0% (0)	56.3% (9)	6.3% (1)	16
Management/Business (e.g. relevant degree or credits)	12.5% (2)	100.0% (16)	25.0% (4)	6.3% (1)	0.0% (0)	43.8% (7)	16
Cultural knowledge (e.g. international experience)	0.0% (0)	68.8% (11)	43.8% (7)	6.3% (1)	6.3% (1)	0.0% (0)	16
General knowledge	18.8% (3)	37.5% (6)	12.5% (2)	0.0% (0)	43.8% (7)	0.0% (0)	16
					Other (please specify) Show Responses		2
					answered question		16
					skipped question		0

4. Which of the following SKILLS are EXPLICITLY measured during the scoring process?   ⊙ Create Chart   ⬇ Download
Tick K/O additionally if there is a minimum requirement and candidates who do not fulfil it are kicked out of the process.

	Measured by a test	Measured by submitted documentation	Measured by personal interaction	Measured by recommendation letter(s)	Not measured	K/O	Response Count
Managing conflicts	6.3% (1)	12.5% (2)	75.0% (12)	0.0% (0)	12.5% (2)	12.5% (2)	16
Cross-cultural communication skills	0.0% (0)	37.5% (6)	68.8% (11)	0.0% (0)	25.0% (4)	0.0% (0)	16
Negotiation skills	0.0% (0)	6.3% (1)	6.3% (1)	0.0% (0)	81.3% (13)	6.3% (1)	16
Networking skills	0.0% (0)	12.5% (2)	6.3% (1)	0.0% (0)	81.3% (13)	6.3% (1)	16
Organisational skills	6.3% (1)	50.0% (8)	43.8% (7)	0.0% (0)	25.0% (4)	6.3% (1)	16
Structuring skills	43.8% (7)	12.5% (2)	43.8% (7)	0.0% (0)	18.8% (3)	18.8% (3)	16
					Other (please specify) Show Responses		1
					answered question		16
					skipped question		0

5. Which of the following ABILITIES are EXPLICITLY measured during the scoring process? Tick K/O additionally if there is a minimum requirement and candidates who do not fulfil it are kicked out of the process.   🟢 Create Chart ⬇ Download

	Measured by a test	Measured by submitted documentation	Measured by personal interaction	Measured by recommendation letter(s)	Not measured	K/O	Response Count
Interpersonal abilities	0.0% (0)	25.0% (4)	**75.0% (12)**	12.5% (2)	12.5% (2)	25.0% (4)	16
Teamwork ability	6.3% (1)	37.5% (6)	**56.3% (9)**	18.8% (3)	25.0% (4)	25.0% (4)	16
Oral communication	12.5% (2)	12.5% (2)	**81.3% (13)**	6.3% (1)	6.3% (1)	12.5% (2)	16
Written communication	18.8% (3)	**75.0% (12)**	6.3% (1)	0.0% (0)	6.3% (1)	6.3% (1)	16
Process quantitative information (e.g. in GMAT)	**75.0% (12)**	25.0% (4)	0.0% (0)	0.0% (0)	0.0% (0)	68.8% (11)	16
Process verbal information (e.g. in GMAT)	**68.8% (11)**	6.3% (1)	6.3% (1)	6.3% (1)	12.5% (2)	50.0% (8)	16
Perceive complex issues	12.5% (2)	18.8% (3)	**56.3% (9)**	0.0% (0)	25.0% (4)	6.3% (1)	16
Recognize underlying issues and relationships	6.3% (1)	12.5% (2)	18.8% (3)	0.0% (0)	**68.8% (11)**	6.3% (1)	16
Behavioral flexibility/ adaptability	0.0% (0)	18.8% (3)	**56.3% (9)**	0.0% (0)	31.3% (5)	12.5% (2)	16
Reaction to criticism	0.0% (0)	18.8% (3)	31.3% (5)	0.0% (0)	**43.8% (7)**	25.0% (4)	16
Stress tolerance	0.0% (0)	18.8% (3)	**62.5% (10)**	0.0% (0)	6.3% (1)	31.3% (5)	16
					Other (please specify)		0
					answered question		16
					skipped question		0

6. Which of the following PERSONALITY TRAITS are EXPLICITLY measured during the scoring process? Tick K/O additionally if candidates who do not show the respective criterion are kicked out of the process.

 Create Chart Download

	Measured by test	Measured by submitted documentation	Measured by personal interaction	Measured by recommendation letter(s)	K/O	Not measured	Response Count
Creativity and innovation	0.0% (0)	25.0% (4)	31.3% (5)	0.0% (0)	6.3% (1)	**43.8% (7)**	16
Determination to achieve an objective	0.0% (0)	56.3% (9)	**68.8% (11)**	6.3% (1)	18.8% (3)	12.5% (2)	16
Enterprising spirit/initiative	0.0% (0)	**50.0% (8)**	31.3% (5)	12.5% (2)	25.0% (4)	31.3% (5)	16
Hardiness	0.0% (0)	18.8% (3)	12.5% (2)	6.3% (1)	6.3% (1)	**62.5% (10)**	16
Integrity	0.0% (0)	18.8% (3)	**43.8% (7)**	6.3% (1)	0.0% (0)	37.5% (6)	16
Intellectual curiosity	0.0% (0)	12.5% (2)	37.5% (6)	6.3% (1)	0.0% (0)	**56.3% (9)**	16
Motivation/drive	0.0% (0)	50.0% (8)	**75.0% (12)**	25.0% (4)	25.0% (4)	25.0% (4)	16
Openness	0.0% (0)	18.8% (3)	**68.8% (11)**	6.3% (1)	0.0% (0)	25.0% (4)	16
Responsibility	0.0% (0)	25.0% (4)	12.5% (2)	6.3% (1)	0.0% (0)	**62.5% (10)**	16
Self-Awareness	0.0% (0)	18.8% (3)	**56.3% (9)**	0.0% (0)	6.3% (1)	37.5% (6)	16
						Other (please specify)	0
						answered question	16
						skipped question	0