The International Journal of Management Education 19 (2021) 100551

Contents lists available at ScienceDirect

The International Journal of Management Education

journal homepage: www.elsevier.com/locate/ijme

Program characteristics and price in MBAs: The interactive effects of external quality signals and co-creation processes

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ARTICLE INFO

Keywords:
Co-creation
MBA
Quality signals
Value propositions
Price
Active learning

ABSTRACT

The objective of this study is to analyze the impact that the different characteristics of MBA programs have on the price that students are willing to pay. In particular, we analyze the effects that the level of program internationalization, the degree of co-creation (through the variety of electives and the use of active learning techniques), cooperation agreements, and the existence of external quality signals (accreditations and presence in rankings) have on tuition fees. A hierarchical regression analysis was performed on a sample of 99 executive or part-time MBA programs offered in Europe. The results revealed that tuition fees are significantly affected by the presence of the program in relevant rankings, its degree of internationalization, and its degree of co-creation. In the latter case, the effect is conditioned by the existence of an external quality signal. Relevant practical implications for the management of executive MBA programs have been obtained from the results.

1. Introduction

From the point of view of a Master's in Business Administration (MBA) applicant, an MBA is perceived as an instrument that allows professional and personal development (Ridgers, 2009). However, to achieve this goal, it is necessary for the MBA to generate value for the student; to achieve this, it is necessary to make adequate value proposals. In this sense, there is a broad debate about the value that MBAs generate, both for students and for organizations, and the factors that determine whether this value is generated (Muff, 2012; Trkman, 2019).

The analysis of the service value has changed considerably in recent years. In the traditional vision, the service company was the entity that generated value for the customer. However, in recent years, the dominant service logic approach has been adopted (Vargo & Lusch, 2008), according to which —among other propositions— value is generated in the interaction between the customer and the company, so that the customer also participates in the generation of this value. Co-creation processes are considered fundamental in the generation of value, as well as in the interaction with other entities and different contextual factors. Companies alone do not generate value but rather make value propositions that can ultimately generate it in interactive processes with customers.

The objective of our work is to analyze the impact that different characteristics of MBA programs have on the price that students are paying for them. We have focused on those variables that, according to the literature (e.g., Rubin & Dierdorff, 2013), are potentially

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https://doi.org/10.1016/j.ijme.2021.100551
Received 17 August 2020; Received in revised form 19 July 2021; Accepted 19 August 2021
Available online 24 August 2021

related to the value perceived by MBA program students. In particular, we will analyze the influence of the degree of program internationalization, the variety of electives, the use of active-learning techniques, partnership agreements, and the existence of external quality signals (accreditations and presence in international rankings) on the price (tuition fees) that students are paying for the program. The price will not only depend on the characteristics of the program, but also on the interrelationships between them. Hence, in this work, not only are the direct effects between the variables and the price of the program taken into account but also the interactive effects. In this sense, the moderating effect of the external MBA signals will also be analyzed, both on the relationship between the variety of electives and price and on the relationship between the use of interactive techniques and price.

We focus on the MBA market, which is especially interesting for two reasons. First, although there is already a considerable literature investigating the demand for degrees, the literature that studies the demand for postgraduate programs, including MBAs, is highly limited (for an exception, see Elliott & Soo, 2013). Second, this is a particularly competitive market but, nevertheless, there are considerable differences in price levels. This points to a high level of differentiation. Thus, it is interesting to analyze which differentiating elements give the program greater potential value and make students willing to pay a higher price.

2. Theoretical background and hypotheses

2.1. The generation of value in MBAs and its effect on price

It is important to identify the aspects that actually create value for the student to understand what elements business schools must act on to be competitive in today's global environment (Pucciarelli & Kaplan, 2016). The literature has identified several dimensions of value for students in higher education programs. Although the dimensions identified (or their denominations) do not always coincide (for a review, see Alves, 2011 and Dziewanowska, 2017), the main factors can be summarized in six values: (1) Functional value: competences, skills, and abilities developed by the student during the master's studies that are valuable to employers; (2) Relational value: relationships developed with the academic staff, other students, and partner institutions; (3) Image-related value: prestige of the master's degree; (4) Conditional value: flexible schedule, transparent rules, studying conditions; (5) Personal-development value: the intrinsic value of knowledge and other factors for personal development; and (6) Emotional value: hedonic experiences, feelings, and affective states.

Dziewanowska (2017) found that the functional along with the relational and personal development dimensions were the most vital value components regarding higher education studies. However, in the specific case of MBA studies (due to their focus on the labor market), the image-related and conditional value might also play a relevant role, whereas the personal-development dimension might be less salient than in other higher-education areas.

But how can the company generate value in these dimensions? According to the service logic approach (Vargo & Lusch, 2008), the company must make value propositions that will involve decision-making and investment, both of which should generate positive expectations and attract potential students. It will be in the interaction of the students/customers with the company that the value will finally be generated.

Nevertheless, even when value propositions eventually have an effect on perceived value, will that be reflected in a higher price? Economic theory tells us that in a competitive and globalized market this is likely to be the case. In fact, Elliott and Soo (2013) analyzed the global MBA market and identified that it "operates in accordance with the market forces of supply and demand" (p.163). Increases in tuition fees negatively affect the number of applications, while an increase in the number of applications is reflected, in the following year, in an increase in tuition fees. The quality and prestige of the program help to explain differences in price levels, but there must be consistency between quality levels and price levels. On the one hand, it is not sustainable to maintain a high price when the value for the customer is not similarly high. The company will suffer a loss in both its reputation and number of applicants due to unfulfilled expectations and low value for money. In a world where eWOM and other external quality signals (e.g., rankings, online comparators, blogs) can quickly affect reputation, the effect on the number of applications can occur remarkably quickly.

On the other hand, keeping a low price when the company offers a high level of value also has certain sustainability problems. Demand would tend to increase, which implies that, if the price is not increased, an opportunity cost is being generated and the opportunity to earn a higher income is lost. Furthermore, maintaining high quality at a competitive level often implies the necessity to maintain a high level of investments and costs (in personnel and other resources) that must be translated into higher prices (Demirgünescedil, 2015). Finally, not aligning the price with the value offered also implies failing to use the price as a quality signal, and may even generate doubts in potential customers about the real quality of the product or service (Erdem et al., 2008).

In sum, although specific deviations in the value-price relationship are possible, it is expected that, in aggregate terms, the relationship between both variables is substantial and significant.

In the subsequent sections, we will analyze how different characteristics of MBA programs can help in generating value for students that, in turn, make them more willing to pay higher tuition fees. We will focus on characteristics that can form an important basis for the positioning of an MBA and its differentiation from competitors. Specifically, we will analyze the effects of: Internationalization, use of active-learning methodologies, content flexibility, partnerships, and quality signals (accreditations and rankings). All of these aspects are expected to have crucial effects on one (or more) of the value dimensions and, thus, on the price paid by students. In the following paragraphs, the causality between these variables will be analyzed and the corresponding hypotheses will be proposed for further testing.

2.2. Internationalization

Knight (1997) identified four possible approaches to the internationalization of education. Several of them can be applied to MBA programs to increase their value to students. In this sense, the *competency-based approach* to program internationalization refers to fostering the development of global qualities, attitudes, and knowledge among students and faculty (Knight, 1997). The greater the number of international students and teachers in an MBA program, the greater the opportunity to develop competencies that favor intercultural communication, teamwork, and integration among diverse students. Given the relevance of global competences in the current context (Randolph, 2011), the development of these capabilities adds relevant functional and relational value to the MBA program (Ramsey & Lorenz, 2016).

Moreover, the internationalization of the MBA, according to the dimension of the *process*, refers to the integration of internationalization in all the main functions provided by the institution (Knight, 1997). This would include, for example, the opening of branch campuses in other countries. Opening international branch campuses and other forms of international activity reinforce visibility as an international institution with global ambitions and enhances its prestige and status (Wilkins, 2017). This adds image-related value for students (Ahmad & Buchanan, 2017).

Finally, there could be an additional effect; namely, the internationalization of the program (especially efforts to attract students from other countries) may lead to a larger market and with it a greater demand that will translate into a higher price.

Therefore, we can propose the following hypothesis.

Hypothesis 1. The greater the internationalization of an MBA program, the greater its price.

2.3. Use of active learning methodologies

In recent years, numerous works in the services sector have placed emphasis on the co-creation of value and its effects on customer satisfaction and other outcome variables (Prahalad, 2004; Vargo & Lusch, 2008). This conception implies that organizations not only provide value to their customers, but all agents (organizations, clients, and others) participate in a joint process of value creation.

Co-creation policies can also be applied to higher education (Dollinger et al., 2018) specifically at the master's level. There are different areas in which co-creation can be applied; for example, it can be applied in curriculum design or in curriculum operation. In this sense, Bovill and Woolmer (2019) deepen the analysis by differentiating between the co-creation *of* the curriculum and co-creation *in* the curriculum. One of the relevant dimensions that may affect the degree of co-creation of an MBA program is its use of active learning methodologies. In this sense, there is a growing trend towards the use of such methodologies. This reflects a critical paradigm shift in education; in this new approach, teachers are no longer mainly transmitters of content but instead assume support tasks in the teaching learning process acting as facilitator, collaborator, advisor, moderator, and coach (Hernández-Lara et al., 2018). Additionally, in the specific case of post-graduate students (and particularly in executive and post-experience programs), they seek differentiation with respect to teaching in grades (Brook & Pedler, 2020), trying to complement the intellectual capital acquired in the previous stages of learning. The more practical training, the less is based on masterclasses and rather on greater teacher-student interaction and decision-making by students; thus, the more value is perceived in the program. There is a higher demand from students for MBA institutions whose teaching more systematically uses these types of active learning techniques, such as case study teaching, consulting projects, or business games.

The literature illustrates that the use of the case method in business schools allows students to develop critical thinking and problem-solving skills, manage complex situations, and consider multiple solutions, as is typical of the real world (Bridgman et al., 2016; Dover et al., 2018; Farashahi & Tajeddin, 2018). This is especially interesting for executive students, who are in a more instrumental stage in their formative process, and therefore they demand more applied knowledge (Garvin, 2007).

Moreover, case study teaching and other active learning methodologies like business games (Hernández-Lara & Serradell-López, 2018) and consulting projects (Lycko & Galanakis, 2019) can affect how students relate to each other. They expose students to a wide variety of ideas and points of view; these encourage cooperative working relationships (Blau & Shanir-Inbal, 2018). In line with these arguments, DeDéaRoglio and Light (2009) interviewed 20 executives attending an Executive MBA and confirmed their high level of satisfaction with the reflective conversations created using the case method.

These techniques support students' acquisition of new capabilities (functional value) and can be used to enhance their interactions with classmates and teachers (relational value), their satisfaction, involvement with the program, perception of greater added value (Sebastianelli et al., 2015), and willingness to pay a higher price.

Hypothesis 2. The greater the use of active learning methodologies in an MBA program, the greater its price

2.4. Content flexibility

Another way that co-creation can be applied to a master's program is to increase the flexibility in the choice of subjects to be taken in the program. The variety of elective subjects to choose from and the possibilities of specialization imply greater participation of the student in the design of the curriculum.

The fact that an institution offers greater flexibility to the students for the programming of their studies is recognized in itself as a possible source of conditional value (Dziewanowska, 2017), but this characteristic can also add value in other dimensions. The literature tells us that the active involvement of students in the design of their training is perceived as increasingly positive (Brooman et al., 2015). Giving the student more of a voice in the design of their curriculum, by allowing a greater variety of electives, provides

more control over their learning process and a greater personalization of their learning (Bovill et al., 2011; Dollinger et al., 2018). In addition, this generates other benefits such as motivation, commitment, and perception of shared responsibility for learning (Bovill et al., 2011; Smorking; Vespestad, 2020; Dollinger & Vanderlelie, 2020).

In particular, in the case of executive MBA programs, the development of customized executive programs is especially important, since students are active executives who work in their own specialties and have their own particular professional backgrounds. The fact that each student can choose the subjects that most interest them allows them to better meet their particular needs and, therefore, generates greater functional value for them (Dover et al., 2018). In summary, the offer of electives allows the program to change from rigidly focused learning to more flexible broad-based learning (Yu, 2010).

Finally, the choice of a number of optional subjects over others transmits information to employers about the decision made by a potential employee; for example, information about the coherence of the decision with past experiences and responsibilities, the degree of difficulty of the chosen subjects, and the will to differentiate themselves in the labor market (Merluzzi and Philipps, 2016).

The transmission of these informative signals increases the image-related value of the MBA program for the student, so they will be willing to pay a higher price.

Hypothesis 3. The greater the content flexibility of an MBA program, the greater its price.

2.5. Partnership

Many universities and business schools develop agreements with other entities to improve the training capacities of their programs. Academic partnership agreements often imply that a part of the lessons taught to students are carried out by members of other universities, business schools, or institutions. The main advantage of these agreements for students is the enrichment of their experience through new teaching approaches and by showing new or real examples (Muff, 2012). Along this line, Benson and Chau (2019) ascertained that these agreements may assist students in the development of transferable skills, accelerate applied learning, and cultivate personal relationships. Thus, working with a strategic partner supports significant learning, which generates greater functional and relational value for students and, therefore, a higher price for the program.

Hypothesis 4. The higher the percentage of lessons taught by partners of the MBA program, the higher the price.

Sometimes partnership agreements are generated with other academic entities with the specific objective of developing dual-degree programs. These programs are “degrees in the same or similar subject area awarded by two or more institutions to students who have met the degree completion requirements for all participating institutions” (Culver et al., 2012).

Dual-degree programs generate value by the transformative learning they create (Hamza, 2010). Culver et al. (2012) found that all the interest groups involved (students, alumni, faculty, and employers) perceive that double degree training increases students’ employability in the market. This generates image-related value. They also affirm that dual-degree training allows students to grow more personally and to develop more communication and cross-cultural skills; in this way, it could also add personal development value.

Given the greater perception of value generation of these programs, it is also expected that students will be more willing to pay a higher price. That is why we propose:

Hypothesis 5. Dual-degree agreements linked to an MBA program will positively affect its price.

2.6. Quality signals

Rankings and accreditations have become a powerful influence in higher education. Accreditations benefit institutions by allowing them to obtain key resources (Kim, 2018), such as good students, public and private financing capacity, alumni commitment to the institution, and/or being a desirable partner in research collaborations, applied projects, and executive training with companies. These resources and their interactions are highly valued by potential students (Ihme et al., 2016), as well as by recruiters and employers (Gander, 2015), and therefore constitute a source of fundamental competitive advantages in this area (Pucciarelli & Kaplan, 2016).

Moreover, rankings and accreditations reinforce the reputation of the program. Since the quality of a program is difficult to define and evaluate (Brooks, 2005), rankings and accreditations provide different target audiences (students, employers) with a powerful quality signal that is easy to obtain and interpret (Bieker, 2014).

Finally, several studies have determined that rankings and accreditations have a significant influence on enrolment (Bowman & Bastedo, 2011; Gibbons et al., 2015; Griffith & Rask, 2007; Luca & Smith, 2013; Meredith, 2004; Sauder & Lancaster, 2006). When students are asked what criteria they consider when choosing the master, they largely refer to the reputation of the program (Hemsley-Brown, 2012). This leads to a willingness to pay a higher price.

Hypothesis 6. When the MBA/business school has obtained at least one relevant international accreditation, the price will be higher.

Hypothesis 7. When the MBA/business school is among those included in relevant rankings, the price will be higher.

2.7. Moderating effects of external signals

Apart from the direct effects that external signals (presence in ranking and possession of a certification) can have on the price that students are willing to pay, they can also have a moderating effect on other model variables. Certifications and rankings may not only

provide value by themselves as quality signals, but also represent a signal that could enhance the effects of other specific characteristics of the program. These characteristics would not reach their potential effect if they are not accompanied by signals to support them. Moreover, the possession of certifications or presence in rankings can allow an MBA program to access specific market segments in which potential customers have higher expectations about several characteristics in the program and have different sensitivity to price. In this way, the effects of other variables on the price may be different in the presence of quality signals. In particular, we believe that these signals can enhance the effects of active learning and co-creation on the price of the master's program.

The use of active-learning methodologies in classes is highly valued by students (Grove & Hussey, 2014). However, this characteristic is not an observable variable at the time of registration. In terms of the SEC (Search-Experience-Credence) framework (Ford et al., 1988), this is an experience attribute. Students face great uncertainty when choosing their university or business school since the results of their choice (and specifically the degree of use of active methodologies) will only be known in the future once the decision has been made (Simões & Soares, 2010).

This implies that students take a risk when making the decision and this causes them to adopt strategies to seek information (Urbany et al., 1989). The business school can try to transmit this information through brochures, leaflets, university websites, university open days, and other communication tools (Veloutsou et al., 2004), but the effectiveness is less than in the case of search attributes. There will be a greater need for an external signal about the quality of the program so that this information is considered by the potential student as reliable and has effects on the demand and willingness to pay a higher price (Gibbons et al., 2015; Simões & Soares, 2010).

Hypothesis 8. When the master's program has (a) an accreditation or (b) a presence in the rankings, the effect of the use of active learning on the price will be greater.

On the other hand, the flexibility, understood in the sense of student participation in the design of the program content, through the choice of electives, is a search attribute thereof (Ford et al., 1988). This information (list of electives and their weight in the curricula) can be reliably obtained by the student before enrolment, so there is no problem here that we have seen in the case of the use of active learning.

However, there is another issue that may make it difficult for this attribute to generate greater demand in some cases; this is due to the generation of doubts about how that flexibility can be received by companies that, in the future, may hire the student who has already completed the master's degree.

Content flexibility can have a dual effect. On the one hand, it can have a positive effect on the quality of the master's degree, allowing it to adapt to the student's training needs and greater possibilities for specialization in areas of knowledge or activity sectors (Bidwell et al., 2015). On the other hand, the flexibility of content could have a negative impact on the consistency of the degree as an informative signal about the knowledge and capabilities acquired by the student. Moreover, several studies show that the first criterion that students use to choose elective subjects is the degree of difficulty in passing it (Appleton-Knapp & Krentler, 2006; Ting & Lee, 2012). In the absence of more information, employers will discount this information, which will penalize programs with a greater weight of electives. With this information, the flexibility of the program will be less valued by the students, given that, at the time of enrolment, the potential students may have serious doubts about whether such flexibility will be welcomed in the labor market.

However, this possible negative effect can be lessened if the MBA has an external signal that can be valued in the labor market. A quality accreditation or a good positioning of the business school in a recognized ranking can reduce the doubts on the subsequent reception of a master's program with a high level of flexibility. External quality signals can act as guarantees for different audiences (students and employers) that there is severe control over the final quality of the program and, as such, that flexibility will not cause a reduction, but rather an improvement, in the quality of the training received by the student. Consequently, in programs with strong external quality signals, the overall effect of flexibility on demand would be more positive by eliminating doubts about the negative components of flexibility.

Hypothesis 9. When the program has (a) an accreditation or (b) a presence in the rankings, the effect of the flexibility on the price will be greater.

3. Research design and methodology

3.1. Research design

MBA programs are highly varied, both in their content and in terms of the audience they are targeting. As a result of this, we have chosen to focus the study on MBAs targeted at active professionals, thus excluding those programs targeted at recent graduates. There are essentially two types of denominations for programs that are aimed at professionals: part-time MBA programs and executive MBAs, both of which were included in the study. These are programs that are designed to make it easier for managers to combine their work activity with the tasks of the MBA program. Online master's programs and MBA programs with a sectorial specialization (e.g., an MBA in International Management, or an MBA in Sports) were excluded since their characteristics or content differ too greatly from standard MBA programs.

Regarding the geographic scope, the research was developed in five countries within Western Europe: France, Italy, Germany, Spain, and the United Kingdom. The first step of the field work was to obtain a sufficiently complete list of MBAs. To achieve this, we had to use different sources of information, among which we can highlight FindAMasters and GMAC (the Graduate Management Admission Council) which publish information on the masters offered in the five countries under study. This information was complemented with information obtained from specific sources in each country. As a result, taking into account the restrictions described

in the previous paragraph, we managed to compile a list of 297 European MBA programs.

The method used to contact the institutions (universities and business schools) that offer these programs was email. Through this means, the directors of the respective master's programs were asked to complete an online questionnaire. After this initial contact, reminder emails followed by telephone calls were used in cases of non-response. Finally, it was possible to obtain a sample of 99 European MBA programs aimed at active professionals.

3.2. Measures

We used a structured questionnaire with three sections. The first section included questions to collect objective data about the master's program. Among the data collected in this section are the fees, the number of credits (detailed by subject type: core, electives, etc.), the duration of the program, data on internationalization, the number of graduates, the number of students per class, and partnerships.

The second section consisted of several seven-point scales that gathered information about the qualitative (or non-objective) characteristics of the MBA. Finally, participants' contact information and additional information about the university or the business school were gathered in the third section of the questionnaire.

Some of the data used in this investigation did not come from the questionnaires but from secondary sources. In particular, information about the external quality signals of the MBA program (international accreditations and position in rankings) was obtained from such secondary sources. The data on the possession of international accreditations was also obtained from the websites of the business schools and supplemented with the information offered on the websites of the accrediting agencies (EFMD, AMBA, and AACSB). The presence of the corresponding business school in rankings was extracted from the lists published by the *Financial Times* (2017), which is recognized as the most prestigious ranking of European business schools; this is a demanding list. Only 95 European institutions are indexed. Sixty-one of them are in one of the five countries included in this research; therefore, their mere presence in the list is already a sign of quality. Only 57 institutions in these countries have the EQUIS accreditation awarded by EFMD. Therefore, we have created a dichotomous variable that indicates whether the MBA (or the business school) is indexed in the *Financial Times* ranking and another dichotomous variable that indicates whether it has at least one of the three relevant international accreditations (EFMD, EQUIS, AMBA, or AACSB).

The dependent variable in our research is the price of the MBA program; more specifically, it is the tuition fees of the program in euros. This variable is interesting for two reasons: (1) In a market as competitive as this, the price can be a good proxy for the value perceived by the students; and (2) it has an interesting value as an indicator of the ability of the MBA program to generate income. To obtain this information, the coordinator of each MBA was asked to provide the data of the MBA tuition fees in euros. In the case of MBAs in the United Kingdom, the data in pounds was requested and recalculated into euros.

The data on the existence of collaboration agreements or partnerships were collected in the first block of the questionnaire. We asked the respondents if the program was a double degree (i.e., an MBA awarded from two or more business schools). We also enquired about the percentage of lessons at partner institutions received by the master's students.

Among the predictors in our model were three latent variables: Content flexibility, use of active-learning methodologies, and internationalization.

Flexibility. We focus on the possibilities for the students to participate in the final design of their curricula. A seven-point scale was included in the questionnaire with three items related to flexibility. The respondents had to answer the following question: To what extent is the MBA characterized by offering … ? "a large variety of elective modules", "opportunities to focus on a specific thematic field", and "opportunities to focus on a specific industry".

Use of active learning methodologies. In our research, with this term we mean the intensity in the use of teaching techniques that foster learner-centricity, i.e., they modify the traditional role of teachers as transmitters of content to a new one, where they are facilitators, collaborators, advisers, coaches, and moderators in the learning process (Hernández-Lara & Serradell-López, 2018). These methodologies contrast with the use of traditional techniques as masterclasses, where the role of the student mainly consists of memorizing and assimilating knowledge. Three items in the questionnaire with a seven-point scale format were used to gather this information: Intensity in the use of case study-based learning; in the use of business games; and in the use of real life consulting projects. The three items selected are in line with the teaching approach that Dover et al. (2018) describe as a sample continuum involving lectures, case studies, role play/simulations, and action-based projects. Although there are highly varied active-learning techniques, these are the most commonly applied techniques in MBAs and, together, they might capture the degree of implementation in each master's program employing active learning methodologies instead of traditional teaching techniques.

Internationalization. We intend to measure the degree of the presence of the MBA in the international market. The survey collected data on three objective indicators that were used for the measurement of this construct: Percentage of international students in the master's program; percentage of international lecturers; and proportion of the activity of the MBA carried out in international campuses.

Secondary data about the population was used to assess the representativeness of the sample. Information about two variables was available: Duration of the master's (in months); and presence/absence of the university or business school in the *Financial Times* ranking. Regarding the master's duration, an independent two-sample *t*-test was performed and indicated that the difference between respondents and non-respondents is not significant ($t = 1.19$, $p = .24$). Finally, we performed a chi-square test which showed that the proportion in the sample of universities or business schools that are listed in the *Financial Times* ranking is not significantly different (Chi-square $= 2.12$, $p = .15$) to this proportion in the population.

3.3. Reliability and validity assessment of the scales

The conventional procedures for the reliability and validity assessment are not appropriate for formative scales (Jarvis et al., 2003), so we must first analyze the nature of the scales used in our research. One of the three scales used (Use of active learning methodologies) is a formative scale. Some MBAs intensely make use of active learning techniques, but others do not. Moreover, by spending more time using one technique, there may be less time left for the use of others. In fact, correlations between items of the scale are not high in our sample; this is an indication that the scale is not reflective (Diamantopoulos & Winklhofer, 2001). However, all of them promote, to some extent, students' active learning (in contrast to other methodologies that are more focused on the use of the master's class), thus they can be added as components of a formative construct.

In contrast, the other two scales (Internationalization and Flexibility) are reflective scales. For each of them, there may be a common antecedent factor that manifests simultaneously in the three items in each scale. In this way, it will be possible to evaluate its reliability and validity with conventional procedures (Jarvis et al., 2003).

As a result, a confirmatory factor analysis was performed to assess the reliability and the validity of these two reflective constructs. The results are illustrated in Table 1. The overall fit indexes point to a good fit of the model to the data (BBNNFI = 0.949; CFI = 0.973; IFI = 0.974; RMSEA = 0.078).

The two main indicators used to estimate reliability (composite reliability coefficient and AVE) exceed, on both scales, the threshold values (0.7 and 0.5, respectively) proposed by the literature (Bagozzi & Yi, 1988). Regarding validity, on the one hand, all the standardized loadings are significant and greater than 0.5, which indicates that there is sufficient convergent validity. On the other hand, the correlation among the constructs does not include the unit value, and the AVEs of these constructs are higher than the squared value of the correlation. We can conclude that there is discriminant validity between the scales (Fornell & Larcker, 1981).

Two variables related to the size of the MBA program have been included as control variables in the model since they could be related to the dependent variable (tuition fees). These two variables are the total number of credits and the duration (in months) of the program.

The main characteristics of the sample are shown in Table 2.

4. Results

Since our hypotheses predict direct effects of the independent variables on the dependent variable along with moderating effects, we performed a hierarchical regression analysis that includes four models. In the first model, the two control variables along with the explanatory variables (except for the variables related to external signals of quality) were included. The external quality signals are highly correlated (a business school that achieves one international accreditation is often in a very good position to achieve other accreditations and to be included in the rankings). Thus, we used Model 1 as a point of comparison and the signaling variables are added successively in Models 2 and 3. Model 2 incorporates the potential direct and moderating effects of the international accreditation, whilst Model 3 incorporates the effects of the presence in the ranking. Finally, Model 4 incorporates all the effects. The variance inflation factor (VIF) for the variables ranges from 1.31 to 2.76 (mean 1.86). This result indicates that multicollinearity is not a major problem in this final model (Hair et al., 1995). The results of the four models are shown in Table 3.

Model 2 is a substantial improvement over Model 1 ($F = 5.10$, $p = .003$); however, this improvement is not as great as that of Model 3 with respect to Model 1 ($F = 8.38$, $p < .001$). The presence in ranking seems to be more effective as an external signal of quality than international quality accreditations. Although Model 4 is not a significant improvement over Model 3 ($F = 1.42$, $p = .243$), we will use it for hypothesis testing since it includes all the hypothesized causal relationships and because it achieves the highest explanatory power ($R^2 = 0.60$).

Hypothesis 1 posed a direct influence of the degree of internationalization of the program on the tuition fees. The corresponding coefficient is significant ($\beta = .26$; $p = .012$). This is also the case concerning the effects of Active learning and Flexibility ($\beta = .14$; $p = .032$ and $\beta = .15$; $p = .035$, respectively). Thus, H1 is supported and H2 and H3 are provisionally supported (as main effects) while we have not yet analyzed the proposed moderating effects of the external quality signals.

However, the hypothesized effect of lessons at partner institutions and the influence of a double degree nature of the MBA are not significant ($\beta = 0.08$; $p = .491$ and $\beta = 0.03$; $p = .703$, respectively). Thus, H4 and H5 must be rejected.

Table 1
Reliability and validity assessment of the reflective scales.

REFLECTIVE SCALES	Standardized loadings (λ)*
Internationalization of the MBA (AVE = 0.515; CR = 0.758)	
% of international students	0.818
% of international lecturers	0.720
% activity at international campuses	0.597
Flexibility (AVE = 0.641; CR = 0.837)	
Variety of electives	0.998
Possibility of focusing on a specific thematic field	0.765
Possibility of focusing on a specific industry	0.597

(*) All standardized loadings are significant ($p < .01$).

Table 2
Descriptive statistics.

Variable	Obs	Mean	Std. Dev.	Min	Max
Tuition fees (euros)	99	24,288.48	11,650.73	7,000	59,900
Total credits	99	84.12121	18.74875	45	120
Duration	99	22.35354	5.129572	9	36
Internationalization	99	22.75939	17.08059	0	66.74
Active learning	99	5.599327	.9618338	3	7
Flexibility	99	4.191919	1.988111	1	7
% lessons at partner institutions	99	12.440226	21.09294	0	100
Double degree	99	0.1010101		0	1
Presence in FT ranking (2017)	99	0.2727273		0	1
International accreditation	99	0.3939394		0	1

Table 3
Hierarchical regression analysis.

	Model 1			Model 2			Model 3			Model 4		
Effects on tuition *fees*												
Number of credits	.28	***	(3.09)	.19	**	(2.29)	.14	*	(1.88)	.13		(1.60)
Duration	-.16		(-1.52)	-.11		(-1.13)	-.03		(-0.33)	-.03		(-0.28)
Internationalization	.42	***	(3.84)	.34	***	(3.33)	.30	***	(2.93)	.26	**	(2.58)
Active-Learning	.09		(1.06)	.09		(1.26)	.17	***	(2.64)	.14	**	(2.18)
Flexibility	.15	**	(2.00)	.11	*	(1.71)	.13	*	(1.84)	.15	**	(2.14)
Lessons at partner institutions	.22	**	(2.15)	.14		(1.33)	.04		(0.37)	.08		(0.69)
Double degree	-.01		(-0.21)	-.02		(-0.24)	.07		(0.83)	.03		(0.38)
Accreditation				.33	***	(3.69)				.13		(1.48)
Active-Learning*accreditation				-.02		(-0.34)				.08		(0.97)
Flexibility*accreditation				.07		(1.04)				-.08		(-1.35)
Ranking							.31	***	(3.15)	.23	**	(2.07)
Active-Learning*ranking							-.06		(-0.86)	-.11		(-1.23)
Flexibility*ranking							.24	***	(2.97)	.27	***	(2.96)
R^2	.46			.54			.58			.60		
F	12.98	***		12.00	***		19.41	***		15.88	***	

Note: Standardized coefficients are shown in the table with t-values in parentheses.
$^*p < .10$ $^{**}p < .05$ $^{***}p < .01$ (two-tailed).

Finally, regarding the effects of external quality signals, the direct influence of international accreditations is significant in Model 2 ($\beta = 0.33$; $p < .001$), but this effect becomes non-significant ($\beta = 0.13$; $p = .142$) when the ranking and the associated interactions are included in Model 4. In this model, the influence of the ranking variable on the tuition fees of the program is significant ($\beta = 0.23$; $p = .041$). Consequently, H7 is supported, but H6 is rejected.

Hypotheses 8 and 9 predicted moderating effects of the external quality signals on the influence of the degrees of Active learning and Flexibility on the fees of the MBAs. Only the coefficient related to the interaction term between flexibility and ranking achieves significance ($\beta = 0.27$; $p = .004$), providing support for H9b, whereas H8a, H8b, and H9a must be rejected.

The existence of a significant moderating effect of the variable ranking makes it necessary to rethink the previously observed main effect of the other variable involved in the corresponding interaction term: Flexibility. The coefficient in Table 3 for the main effect of Flexibility indicates the effect on fees at the medium level of the moderating variable (presence in Financial Times ranking). However, this is a dichotomous variable with only two levels: "Not in the Financial Times ranking" and "In the Financial Times ranking". What are the effects of Flexibility on fees at these two levels? Table 4 outlines the corresponding estimated coefficients.

We can see that the effect of flexibility when the institution is not in the Financial Times ranking is not significant. However, when the business school is listed in the ranking, this effect is very significant ($\beta = 0.65$; $p = .002$). The effect posed in H1 is severely conditioned by the ranking variable.

5. Discussion and conclusions

The aim of this work is to analyze the characteristics of MBA programs that affect the tuition fees that students are willing to pay.

Table 4
Effects of Flexibility on tuition fees when a program is present or not present in FT ranking.

	Beta	Z	p
Not in FT Ranking	-.043	−0.66	.507
In FT Ranking	.649	3.05	.002

We have proposed and tested a causal model that includes several types of explanatory variables: Teaching practices (use of active learning methodologies), content (flexibility), internationalization, partnerships (lessons at partner institutions and double degrees), and external quality signals (rankings and accreditations). The proposed model has achieved a broad explanatory power on the dependent variable. However, not all the posed hypotheses have been supported by the data.

The positive effects of variables that relate to the scope of the program (degree of internationalization and the degree of flexibility through interaction and through the choice of electives) have been observed. All of them have evidenced their influence on the value that students give to the programs and, thus, the prices they pay for tuition.

However, in the case of the flexibility effect (by the choice of electives), we see that the effect is highly significantly conditioned by the existence of an external quality signal, in particular, with whether the institution appears in a prestigious ranking.

No significant effects of lessons at partner institutions have been observed in the final model, which has led us to reject H4. However, the effect was significant in Model 1 ($\beta = 0.22$; $p = .034$), in which the effects of external quality signals were not included. This combination of results could point to the existence of an indirect effect of these types of lessons. They could help the program receive an accreditation or recognition in the rankings, which would ultimately influence the tuition fees thereof.

In contrast, the double degree instrument of the program has not shown significant effects in any of the models proposed. This result seems to contradict the idea that a double degree adds value to students (Culver et al., 2012). In our opinion, this is not necessarily true. It could be that this type of instrument is used precisely by those programs that are weaker in other relevant aspects (e.g., internationalization, flexibility, accreditations, etc.) and as a result of these weaknesses cannot charge high tuition fees. In these circumstances, the double degree adds value to the students enrolled in the program, but when the business school has sufficient resources, this instrument becomes irrelevant and the tendency is not to use it. This is in line with the results of Kalafatis et al. (2016) who found that the added benefit of a partnership is greater for the lower ranked institution than the higher ranked one.

The external quality signal that has shown greater value for students is the presence in rankings. This is perhaps due to the more dynamic nature of the rankings (compared to accreditations), with annual updates that can give it greater power as an informative signal. We have considered the most prestigious ranking for European institutions that offer MBA programs: *Financial Times*. A presence on this list entails a substantial increase in the tuition fees that the programs can charge. However, its effect does not end there; we also see that presence in the ranking helps to provide credibility to co-creation policies. With a presence on the list, potential students perceive much greater value in the fact that they can choose subjects. The doubts about whether this flexibility can harm the final value of the degree dissipate and flexibility acquires its full potential as an attractive element for the program.

However, the effect of the use of active learning methodologies does not seem to be affected by external quality signals. This can likely be explained by the information offered on social media. Although the degree of use of these techniques is not an observable variable before enrolment, potential students can learn a great deal about the real use of active learning in the programs from comments from former or current students on social media. In this way, external quality signals are not necessary for this purpose and active learning can play its role as a valuable element of the programs without the need for accreditation support or a presence in the rankings.

Taken together, the results indicate a remarkable relationship between external signals and the price of the programs. The search for accreditation and a good position in relevant rankings involves the investment of significant time and resources, which will only become profitable if it is finally accompanied by attracting a market segment willing to pay a high price in exchange for a recognized quality program. However, most programs do not compete in this area; they target other segments that are unwilling to pay such a high price, and use other instruments that are more appropriate given the expectations of the potential students who are part of them.

Using the Strategic Group Theory approach (Caves & Porter, 1977; McGee & Thomas, 1986), the results suggest that external signals could be one of the key strategic variables to identify the institutions belonging to different strategic groups. The market segments served and the instruments (or their combinations) used by the entities in different groups would differ (Mascarenhas & Aaker, 1989). Achieving accreditation and a better position in the rankings will be key to overcoming possible barriers to mobility between groups. Understanding this market as a homogeneous area of competition would be a mistake, since both the levels of competition and the competitive instruments are different for each strategic group. External quality signals may act as differentiating elements and, given the high investments and time involved, they may also be associated with barriers to mobility between groups.

Several implications for master's program managers can be extracted from this study. If they want the program to provide greater value for the students so that they are willing to pay a higher tuition fee, it is advisable to implement the following policies.

First, both the internationalization of the programs and the application of active learning techniques are policies that have shown their effectiveness by adding value to the students of executive MBAs. Second, it is advisable to try to strengthen the relevance of the external quality signals of the programs; in particular, we have seen the considerable effect of the *Financial Times* rankings. Some authors have pointed out the dangers of investing in ranking positioning (Kim, 2018), especially that of neglecting other investments more directly oriented towards teaching. Nevertheless, the benefits of these signals are crucial, and we see that they help future financing via higher tuition fees. The managers should try to obtain a position in the rankings but without forgetting that this is an intermediate objective that can help achieve future goals in which quality teaching must be present. Finally, the variety in the offer of electives is a well valued characteristic when paying for a master's program, but it must be accompanied by a powerful signal of external quality. Otherwise, it will not have the desired effect on the price the students are willing to pay.

Several limitations and opportunities for further research must be mentioned. The size of the sample is not small in relative terms, but it can be a limitation when it comes to effectively testing some hypotheses. Specifically, it is difficult to disaggregate the effects of accreditations from those of the presence in rankings. However, even under these circumstances a number of significant effects were identified. It would be advisable to extend the study to a wider area in which it would be possible to obtain larger samples. This would mean increasing heterogeneity in terms of objectives and types of programs, but it would also imply the possibility of more effectively

disaggregating the effects of external signals. Moreover, a larger sample would facilitate an analysis of the results by country. Although the market for executive MBAs has a considerable degree of globalization, the location could condition the degree of application and even the effect of some value propositions. The area of offline executive and part-time MBAs is just one of the segments within the broad MBA market, in which other modalities (online or sector-specific) are increasing their share. The degree to which the results obtained here are also valid for these other areas is a question for further research.

We have focused on the variety of electives and in the use of three active learning methodologies as key instruments for co-creation with students. With these, we tried to capture the main indicators of the value proposals (via co-creation) of the MBA programs. However, other techniques can be used to encourage co-creation in these programs. In particular, expanding techniques such as flipped classrooms and the participation of students in the creation of cases and other materials can significantly contribute to value generation. A study that systematically focuses on the effects of different types of co-creation techniques on the price of MBAs would be an interesting way to further research this area. We would recommend in this regard to not forget the possible interactions with external quality signals, since new interactive effects could be discovered.

We have analyzed the relationship between the characteristics of the MBA programs and their price and have found several significant effects. However, to deepen the analysis of these relationships it would be convenient to incorporate the perceptions of intermediate users (students) and even end users (employers). This would allow a deeper vision of the process that encompasses the characteristics of the program to the price paid, through the generation of value for students and employers.

Finally, as has already been mentioned before, the possession of certifications or the presence in rankings can allow an MBA program to join other strategic groups and access specific market segments in which the levels of competition and the expectations of customers are different. Beyond the interaction effects analyzed in this article, future research with big samples could analyze and compare the effects of program characteristics on price in each strategic group. Moreover, there could be causal effects between the predictors in our model (e.g., effect of Flexibility on ranking). A longitudinal study would allow a more in-depth analysis of these relationships and their final effects on price.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgement

This research was funded by Ministerio de Economía, Industria y Competitividad, Gobierno de España, grant number ECO2016-76783-R.

Appendix

Correlation matrix.

	1	2	3	4	5	6	7	8	9	10
1. Tuition fees	1.00									
2. Nº of credits	.140	1.00								
3. Duration	-.070	.461**	1.00							
4. Internationalization	.577**	-.075	-.053	1.00						
5. Active-Learning	.254*	-.174	-.121	.256*	1.00					
6. Flexibility	.293**	-.007	.061	.242*	.261*	1.00				
7. Lessons at partner ins.	.456**	-.081	-.079	.520**	.203*	.128	1.00			
8. Double degree	.217*	-.094	-.128	.243*	.140	.103	.507**	1.00		
9. Ranking	.585**	.102	-.069	.434**	.027	.250*	.414**	.096	1.00	
10. Accreditation	.572**	.151	-.023	.383**	.157	.204*	.328**	.210*	.713**	1.00

*p < .05 **p < .01.

References

Ahmad, S. Z., & Buchanan, F. R. (2017). Motivation factors in students' decision to study at international branch campuses in Malaysia. *Studies in Higher Education, 42*(4), 651–668.

Alves, H. (2011). The measurement of perceived value in higher education: A unidimensional approach. *Service Industries Journal, 31*(12), 1943–1960.

Appleton-Knapp, S. L., & Krentler, K. A. (2006). Measuring student expectations and their effects on satisfaction: The importance of managing student expectations. *Journal of Marketing Education, 28*(3), 254–264.

Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science, 16*(1), 74–94.

Benson, G. E., & Chau, N. N. (2019). The supply chain management applied learning center: A university–industry collaboration. *Industry and Higher Education, 33*(2), 135–146.
Bidwell, M., Won, S., Barbulescu, R., & Mollick, E. (2015). I used to work at Goldman Sachs! How firms benefit from organizational status in the market for human capital. *Strategic Management Journal, 36*(8), 1164–1173.
Bieker, R. F. (2014). Does AACSB accreditation provide quality assurance and foster quality improvement for limited resource business schools whose missions are primarily teaching? *International Journal of Management in Education, 12*(3), 283–292.
Blau, I., & Shamir-Inbal, T. (2018). Digital technologies for promoting "student voice" and co-creating learning experience in an academic course. *Instructional Science, 46*(2), 315–336.
Bovill, C., Cook-Sather, A., & Felten, P. (2011). Students as co-creators of teaching approaches, course design, and curricula: Implications for academic developers. *International Journal for Academic Development, 16*(2), 133–145.
Bovill, C., & Woolmer, C. (2019). How conceptualisations of curriculum in higher education influence student-staff co-creation in and of the curriculum. *Higher Education, 78*(3), 407–422.
Bowman, N. A., & Bastedo, M. N. (2011). Anchoring effects in world university rankings: Exploring biases in reputation scores. *Higher Education, 61*(4), 431–444.
Bridgman, T., Cummings, S., & McLaughlin, C. (2016). Restating the case: How revisiting the development of the case method can help us think differently about the future of the business school. *The Academy of Management Learning and Education, 15*(4), 724–741.
Brook, C., & Pedler, M. (2020). Action learning in academic management education: A state of the field review. *International Journal of Management in Education, 18*(3), Article 100415.
Brooks, R. (2005). Measuring university quality. *The Review of Higher Education, 29*(1), 1–21.
Brooman, S., Darwent, S., & Pimor, A. (2015). The student voice in higher education curriculum design: Is there value in listening? *Innovations in Education & Teaching International, 52*(6), 663–674.
Caves, R. E., & Porter, M. E. (1977). From entry barriers to mobility barriers: Conjectural decisions and contrived deterrence to new competition. *Quarterly Journal of Economics, 91*(2), 241–261.
Culver, S. M., Puri, I. K., Spinelli, G., DePauw, K. P., & Dooley, J. E. (2012). Collaborative dual-degree programs and value added for students: Lessons learned through the EVALUATE-E project. *Journal of Studies in International Education, 16*(1), 40–61.
De Déa Roglio, K., & Light, G. (2009). Executive MBA programs: The development of the reflective executive. *The Academy of Management Learning and Education, 8*(2), 156–173.
Demirgünescedil, B. K. (2015). Relative importance of perceived value, satisfaction and perceived risk on willingness to pay more. *International Review of Management and Marketing, 5*(4), 211–220.
Diamantopoulos, A., & Winklhofer, H. M. (2001). Index construction with formative indicators: An alternative to scale development. *Journal of Marketing Research, 38*(2), 269–277.
Dollinger, M., Lodge, J., & Coates, H. (2018). Co-creation in higher education: Towards a conceptual model. *Journal of Marketing for Higher Education, 28*(2), 210–231.
Dollinger, M., & Vanderlelie, J. (2020). Closing the loop: Co-designing with students for greater market orientation. *Journal of Marketing for Higher Education*, 1–17.
Dover, P. A., Manwani, S., & Munn, D. (2018). Creating learning solutions for executive education programs. *International Journal of Management in Education, 16*(1), 80–91.
Dziewanowska, K. (2017). Value types in higher education–students' perspective. *Journal of Higher Education Policy and Management, 39*(3), 235–246.
Elliott, C., & Soo, K. T. (2013). The international market for MBA qualifications: The relationship between tuition fees and applications. *Economics of Education Review, 34*, 162–174.
Erdem, T., Keane, M. P., & Sun, B. (2008). A dynamic model of brand choice when price and advertising signal product quality. *Marketing Science, 27*(6), 1111–1125.
Farashahi, M., & Tajeddin, M. (2018). Effectiveness of teaching methods in business education: A comparison study on the learning outcomes of lectures, case studies and simulations. *International Journal of Management in Education, 16*(1), 131–142.
Ford, G. T., Smith, D. B., & Swasy, J. L. (1988). An empirical test of the search, experience and credence attributes framework. Provo, UT. In M. J. Houston (Ed.). *ACR North American advances* (Vol. 15, pp. 239–244).
Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research, 18*(1), 39–50.
Gander, M. (2015). Higher education business management staff and the MBA: A small study analysing intrinsic and extrinsic benefits. *The Journal of Education for Business, 90*(3), 139–144.
Garvin, D. A. (2007). Teaching executives and teaching MBAs: Reflections on the case method. *The Academy of Management Learning and Education, 6*(3), 364–374.
Gibbons, S., Neumayer, E., & Perkins, R. (2015). Student satisfaction, league tables and university applications: Evidence from Britain. *Economics of Education Review, 48*, 148–164.
Griffith, A., & Rask, K. (2007). The influence of the US news and world report collegiate rankings on the matriculation decision of high-ability students: 1995–2004. *Economics of Education Review, 26*(2), 244–255.
Grove, W. A., & Hussey, A. (2014). Returns to MBA quality: Pecuniary and non-pecuniary returns to peers, faculty, and institution quality. *Labour Economics, 26*, 43–54.
Hair, Anderson, R. E., Tatham, R. L., & Black, W. C. (1995). *Multivariate data analysis with readings*. New Jersey: Prentice Hall.
Hamza, A. (2010). International experience: An opportunity for professional development in higher education. *Journal of Studies in International Education, 14*(1), 50–69.
Hemsley-Brown, J. (2012). The best education in the world': Reality, repetition or cliché? International students' reasons for choosing an English university. *Studies in Higher Education, 37*(8), 1005–1022.
Hernández-Lara, A. B., & Serradell-López, E. (2018). Student interactions in online discussion forums: Their perception on learning with business simulation games. *Behaviour & Information Technology, 37*(4), 419–429.
Ihme, T. A., Sonnenberg, K., Barbarino, M. L., Fisseler, B., & Stürmer, S. (2016). How university websites' emphasis on age diversity influences prospective students' perception of person-organization fit and student recruitment. *Research in Higher Education, 57*(8), 1010–1030.
Jarvis, C. B., MacKenzie, S. B., & Podsakoff, P. M. (2003). A critical review of construct indicators and measurement model misspecification in marketing and consumer research. *Journal of Consumer Research, 30*(2), 199–218.
Kalafatis, S. P., Ledden, L., Riley, D., & Singh, J. (2016). The added value of brand alliances in higher education. *Journal of Business Research, 69*(8), 3122–3132.
Kim, J. (2018). The functions and dysfunctions of college rankings: An analysis of institutional expenditure. *Research in Higher Education, 59*(1), 54–87.
Knight, J. (1997). A shared vision? Stakeholders' perspectives on the internationalization of higher education in Canada. *Journal of Studies in International Education, 1*(1), 27–44.
Luca, M., & Smith, J. (2013). Salience in quality disclosure: Evidence from the US news college rankings. *Journal of Economics and Management Strategy, 22*(1), 58–77.
Lycko, M., & Galanakis, K. (2019). Student consultancy projects playbook: Learning outcomes and a framework for teaching practice in an international entrepreneurial context. *The International Journal of Management Education*, Article 100285.
Mascarenhas, B., & Aaker, D. A. (1989). Mobility barriers and strategic groups. *Strategic Management Journal, 10*(5), 475–485.
McGee, J., & Thomas, H. (1986). Strategic groups: Theory, research and taxonomy. *Strategic Management Journal, 7*(2), 141–160.
Meredith, M. (2004). Why do universities compete in the ratings game? An empirical analysis of the effects of the US news and world report college rankings. *Research in Higher Education, 45*(5), 443–461.
Merluzzi, J., & Phillips, D. J. (2016). The specialist discount: Negative returns for MBAs with focused profiles in investment banking. *Administrative Science Quarterly, 61*(1), 87–124.
Muff, K. (2012). Are business schools doing their job? *The Journal of Management Development, 31*(7), 648–662.
Prahalad, C. K. (2004). The blinders of dominant logic. *Long Range Planning, 37*(2), 171–179.

Pucciarelli, F., & Kaplan, A. (2016). Competition and strategy in higher education: Managing complexity and uncertainty. *Business Horizons, 59*(3), 311–320.
Ramsey, J. R., & Lorenz, M. P. (2016). Exploring the impact of cross-cultural management education on cultural intelligence, student satisfaction, and commitment. *The Academy of Management Learning and Education, 15*(1), 79–99.
Randolph, W. A. (2011). Developing global business capabilities in MBA students. *Journal of Management Inquiry, 20*(3), 223–240.
Ridgers, B. (2009). *Which MBA?* London: The Economist Newspaper.
Rubin, R. S., & Dierdorff, E. C. (2013). Building a better MBA: From a decade of critique toward a decennium of creation. *The Academy of Management Learning and Education, 12*(1), 125–141.
Sauder, M., & Lancaster, R. (2006). Do rankings matter? The effects of US news & world report rankings on the admissions process of law schools. *Law & Society Review, 40*(1), 105–134.
Sebastianelli, R., Swift, C., & Tamimi, N. (2015). Factors affecting perceived learning, satisfaction, and quality in the online MBA: A structural equation modeling approach. *The Journal of Education for Business, 90*(6), 296–305.
Simões, C., & Soares, A. M. (2010). Applying to higher education: Information sources and choice factors. *Studies in Higher Education, 35*(4), 371–389.
Smørvik, K. K., & Vespestad, M. K. (2020). Bridging marketing and higher education: Resource integration, co-creation and student learning. *Journal of Marketing for Higher Education*, 1–15.
Ting, D. H., & Lee, C. K. C. (2012). Understanding students' choice of electives and its implications. *Studies in Higher Education, 37*(3), 309–325.
Trkman, P. (2019). Value proposition of business schools: More than meets the eye. *International Journal of Management in Education, 17*(3), 100310, 1-11.
Urbany, J. E., Dickson, P. R., & Wilkie, W. L. (1989). Buyer uncertainty and information search. *Journal of Consumer Research, 16*(2), 208–215.
Vargo, S. L., & Lusch, R. F. (2008). Service-dominant logic: Continuing the evolution. *Journal of the Academy of Marketing Science, 36*(1), 1–10.
Veloutsou, C., Lewis, J. W., & Paton, R. A. (2004). University selection: Information requirements and importance. *International Journal of Educational Management, 18*(3), 160–171.
Wilkins, S. (2017). Ethical issues in transnational higher education: The case of international branch campuses. *Studies in Higher Education, 42*(8), 1385–1400.
Yu, C. W. M. (2010). Business curriculum and assessment reform in Hong Kong schools: A critical review from a competence-based perspective. *Journal of Vocational Education and Training, 62*(1), 27–50.