DIGITALES ARCHIV

Chen, Andy W.; Chen, Hao

Article

Pricing of higher education : the case of top-ranked MBA programs

Economics and Business Letters

Provided in Cooperation with:
University of Oviedo

This Version is available at:
http://hdl.handle.net/11159/6032

Pricing of higher education:
The case of top-ranked MBA programs

Andy W. Chen[1],* • Hao Chen[2]

[1]*Seattle Pacific University, US*
[2]*University of British Columbia, Canada*

Abstract

Tuition fees of full-time MBA programs with similar structure can vary greatly from around USD $20,000 to USD $220,000. This paper explores the effects of post-graduation salary, reputation, and their interaction on such high discrepancy in MBA tuition. Using a unique dataset of international MBA programs, we found that program value is positively correlated with post-graduation salary. This relationship is stronger for more prestigious programs whose values are impacted more by graduate outcomes. In addition, this relationship is greater for North American programs, but smaller for European programs, suggesting a geographical effect. These results provide managerial implications for program administrators and universities offering professional business programs. These insights can be extended to other industries of intangible experience goods.

Keywords: MBA programs; business education; university ranking; graduate program cost; regression analysis
JEL Classification Codes: I20, I23

1. Introduction

MBA (Master of Business Administration) programs are among the most costly programs a university offers. MBA programs often recruit students with intensive marketing efforts that highlight their strengths on multiple dimensions. Even the most well-known business schools in the world compete in the MBA market by devoting plenty of efforts into recruiting, emphasizing their programs' academic experience, student life, career impact, employment outcomes, and alumni power. For example, Harvard University touts its MBA program as an intensive and rewarding experience that builds "deep general management and leadership skills, setting the foundation for lifelong impact on how they lead" (HBS, 2020). MBA programs are often branded as a stepping stone into a stellar career with lucrative income, allowing many highly recognized MBA programs to charge a price premium.

---

* Corresponding author. E-mail: chena4@spu.edu.

Citation: Chen, A. W., and Chen, H. (2021) Pricing of higher education: The case of top-ranked MBA programs, *Economics and Business Letters,* 10(3), 310-318.

Most curricula are similar across schools despite different reputation, and one might even argue that they deliver similar content. However, tuitions of MBA programs can vary significantly across schools globally. This is understandable at a first glance since schools located in different countries might be affected by several different factors such as the cost of living and the purchasing power of local currency. However, it is to our attention that even within the same developed country, the tuition fee can vary in a non-trivial way. Take the United States as an illustrating example. The total tuition of the two-year full-time MBA program offered by the University of Pennsylvania (Wharton) is USD $222,540, while the two-year program with a similar structure offered by the University of Florida charges USD $26,473. The difference is astonishing as Wharton charges nearly ten times more. This interesting observation drives us to explore the underlying factors that significantly affect tuitions of MBA programs.

We examine the effects of post-MBA salaries, reputation, and their interaction on the price of MBA programs. In particular, we investigate whether schools can charge a price premium for higher return on investment. We also study how the effectiveness of such strategy varies based on a program's reputation. One difficulty of such a quantitative study is the lack of available data. We use annual MBA program rankings published by internationally recognized organizations. In addition, many different factors are published by these agencies as a supplement on how the ranking was calculated. This paper utilizes rankings data from four sources: the Economist, Financial Times, QS and Bloomberg Businessweek. Detail about the data is discussed in Section 3. Moreover, information was collected concerning the following four aspects to provide a comprehensive coverage of an MBA program: the program profile, class profile, and post-graduate job performance. The results provide managerial implications by identifying strengths and weaknesses in their product positioning. Combined with their current situation, schools can identify areas with most potential, and design competitive strategies in the market of MBA programs. The insights can be extended beyond education markets. If a product offers superior return on investment, they can use it as a competitive advantage to charge a price premium.

2. Theory and hypotheses

2.1. Expected return on investment and price

This paper contributes to the literature by exploring the relationship between return on investment and price in the education market. We study this relationship empirically and estimate its magnitude using historical return on investment of MBA programs, which is measured in both absolute salaries and percentage increase in salaries. Basic economic theory suggests that consumers obtain utilities from buying and consuming a product. Rational consumers are willing to pay more if they expect to derive more utilities from a product. For example, consumers are willing to pay a price premium for environmentally friendly products (Berger, 2019), green products (Biswas, 2016), organic products (Tranter et al., 2009; Gil, Gracia, & Sanchez, 2000), pesticide-free produce (Boccaletti & Nardella, 2000), food products with proven healthy attributes (Bower, Saadat, & Whitten, 2003; Dolgopolova & Teuber, 2018), and food safety features (Caswell & Siny, 2007). In relevant economic research, it has been proposed that acquisition of college education can be considered an investment in human capital (Becker, 1975; Mincer, 1993; Paulsen, 1998). Moreover, if college education generates more return on investment compared to other financial assets, then it is reasonable to invest in it (Cohn and Geske, 1990; McMahon and Wagner, 1982; Paulsen and Peseau, 1989; Paulsen, 1998). An MBA education provides many benefits such as managerial education, career advancement, networking opportunities, and most importantly increase in compensation. These benefits are similar to additional product features consumers are willing to pay a premium for. Most MBA students are mid-career professionals and return on investment should be critical.

Return on investment is a main factor for ranking MBA programs. Based on findings, we test the following two hypotheses.

>   *Hypothesis 1*: Tuitions of MBA programs have a positive relationship with post-MBA salaries.

>   *Hypothesis 2*: Tuitions of MBA programs have a positive relationship with percentage increase in salaries.

2.2 Program stratification and price

In economics and business applications, reputation serves as an important signal for quality, especially for unfamiliar products and services. It was found that buyers are more likely to bid on and pay a premium for auctions from reputable online sellers (Jin & Kato, 2006; Landon & Smith, 1997; Melnik & Alm, 2002). In addition, the impact of superior reputation outweighs improvements in quality (Landon & Smith, 1997; Landon & Smith, 1998). This phenomenon is common in experience goods and services (Costanigro, Bond, & McCluskey, 2012) including higher education, where reputation is highly important to a school. In fact, there is a permanent component of prestige associated with a school (Weakliem, Gauchat, & Wright, 2012), which forms a hierarchy in higher education. Davies and Zarifa (2012) found the existence of stratified populations of schools in higher education, creating a state of inequality with uneven distribution of resources among schools with different status. This hierarchy also determines a school's operational strategies. For example, Taylor (2016) found that changes in R&D policy varied between low- to moderate-resource public universities and elite universities in the 2000's. Additionally, this hierarchy of schools affects avenues to success in student outcomes. Jung & Lee (2016) found that more graduates from top-tier universities found jobs through open competition, while those from low-tier universities relied on networks and recommendations. These findings suggest that reputation affects a school's competitive strategies and student employment. We explore whether highly ranked schools can capitalize on their superior reputation because it implies high quality and the ability to charge a price premium. We test the following hypothesis.

>   *Hypothesis 3:* Tuitions of more prestigious MBA programs have a stronger relationship with post-MBA salaries than less prestigious programs do.

3. Data and methods

The aim of the paper is to study full-time two-year MBA programs. By default, data for this program format was gathered. For some schools, only a one-year full-time program is available. In this case, we chose the one-year program, even though a two-year part-time program may be available. We included a dummy variable to indicate if a one-year program was used in the sample. If only an online program is available (for example, University of Illinois Urbana-Champaign), we excluded it as most online programs are part-time. We collected information from four different sources: the Economist, Financial Times, QS, and Bloomberg Businessweek. For each source, we collected as much information as possible about MBA program rankings, locations, student profiles, post-MBA outcomes. Each source may provide data for a different number of variables. When a variable has values gathered from more than one source, we aggregated them into one by taking average value across different sources. We also filtered the schools to keep only those ranked in top 100 on at least one ranking. The final sample includes 133 MBA programs. After gathering data from the above sources, a few schools still had missing data. In such cases, individual school websites were used. If data was still not obtainable, the most similar relevant data was used from the school websites. Since the data has rather different scales, we standardized each numerical explanatory variable by subtracting its sample average and then divided by its sample standard deviation. After the standardization, each follows a standard normal distribution with mean 0 and standard deviation 1.

Table 1. Summary Statistics of Numerical Variables (Standardized Values in Parentheses).

Variable	Mean	Median	SD	Min	Max	N
Total Tuition (USD)	79569.35	72635	37179.24	25200	159164	133
	(0)	(-0.19)	(1)	(-1.46)	(2.14)	
Average Post-MBA Salary	66.78	72	33.72	2	133.67	133
(USD)	(0)	(0.15)	(1)	(-1.92)	(1.98)	
Post-MBA Salary Increase	156.49	81	176.52	22	926.67	133
in Percentage	(0)	(-0.42)	(1)	(-0.76)	(4.36)	
MBA Rank	2.94	2	3.04	0	14	133
	(0)	(-0.31)	(1)	(-0.97)	(3.64)	
Overall University Rank	81888.43	71540	33953.08	30295	149412	133
	(0)	(-0.25)	(1)	(-1.52)	(1.99)	
Class Size	5.82	5.6	1.4	3	11	133
	(0)	(-0.16)	(1)	(-2.02)	(3.71)	
Number of Schools in	0.37	0.37	0.09	0.09	0.65	133
Proximity	(0)	(0)	(1)	(-3.18)	(3.09)	
Average of Tuition Fees of	0.56	0.45	0.29	0.01	1	133
Close Schools (USD)	(0)	(-0.41)	(1)	(-1.89)	(1.5)	
Average Work Experience	28.95	28.67	1.58	26	35.5	133
(Year)	(0)	(-0.18)	(1)	(-1.87)	(4.15)	
Ratio of Female	0.89	0.9	0.08	0.47	1	133
	(0)	(0.05)	(1)	(-3.32)	(1.46)	
Ratio of International	93217.78	95442.25	26401.74	30825.5	145559	133
Students	(0)	(0.08)	(1)	(-2.36)	(1.98)	
Average Age of Students	94.24	69.75	74.82	14.5	404.1	133
	(0)	(-0.28)	(1)	(-1.07)	(4.14)	
Ratio of Employment After	86.24	83.4	41.03	3.5	243.3	133
3-Months Graduation	(0)	(-0.26)	(1)	(-2.22)	(3.8)	
Ratio of Alumni to	156.39	112.33	143.09	2.33	671.33	133
Students	(0)	(-0.28)	(1)	(-1.05)	(3.55)	

We conducted exploratory data analysis to show summary statistics of the variables in Table 1. Some variables were calculated by averaging values from multiple sources, hence the decimals in the values. Average tuition for all 133 programs is $79,569, with some programs costing as much as $159,164 and as low as $25,200. This observation represents precisely the motivation for exploring the discrepancy between tuitions of MBA programs. The summary statistics show that schools can vary in multiple dimensions. Average class size ranges from 22 to 927 students. Number of schools in proximity (within 200 miles) ranges from 0 to as many as 14. Other variables such as average work experience, average age of students, and average post-MBA salary also show great variation. These are potential factors that contribute to the high discrepancy in tuition, and the study aims to parse out and measure these effects. To measure the effect of reputation, return on investment, and interaction between these factors on tuition, we estimated ordinary least squares (OLS) regressions of tuition on the independent and control variables in Table 1.

4. Results

Table 2 shows the results from estimating OLS regressions of the dependent variable tuition on percent increase in salary and control variables described above. As hypothesized, post-MBA salary is significant in all models. In addition, percentage increase in salary is significant in the

Table 2. OLS Linear Regression of Tuition.

Variable	Model 1	Model 2	Model 3	Model 4	Model 5
Constant	97801.56	94726.84	92243.3	90005.19	90132.74
	(3098.53)***	(3028.52)***	(3070.02)***	(3129.04)***	(3143.6)***
Job Within 3	-2707.92	-3459.25	-2917.06	-4152.9	-4155.13
Months	(1928.08)	(1832.16)*	(1799.46)	(1855.25)**	(1859.97)**
Post-MBA	12762.93	13520.91	14059.97	13821.66	13717.05
Salary	(2575.26)***	(2441.57)***	(2382.08)***	(2345.05)***	(2356.93)***
Percent Increase	1441.46	2660.99	2335.73	2893.77	2871.98
in Salary	(1761.61)	(1692.93)	(1740.24)	(1716.52)*	(1721.23)*
Rank	-12019.86	-6640.47	-5786.99	-7986.01	-8101.55
	(2639.45)***	(2836.02)**	(2798.55)**	(2851.32)***	(2864.51)***
Overall	-3273.29	-3031.71	-3204.8	-2773.86	-2694.59
University Rank	(1800.32)*	(1702.76)*	(1718.5)*	(1726.55)	(1735.56)
One-Year	-27817.28	-25052.76	-20151.76	-15146.65	-15503.07
Program	(4197.71)***	(4027.81)***	(4374.39)***	(4659.81)***	(4706.16)***
Public	-10118.98	-6439.09	-5868.01	-6123.02	-6043.52
	(3545.87)***	(3476.26)*	(3405.44)*	(3338.48)*	(3349.37)*
Class Size		8848.94	7411.42	6678.81	6416.76
		(2218.46)***	(2211.08)***	(2184.96)***	(2230.09)***
Age of Students			-7905.97	-7105.9	-7169.01
			(3058.47)**	(3012.29)**	(3021.62)**
Work Experience			3042.39	5214.11	5203.95
			(3092.27)	(3203.7)	(3211.88)
Ratio of Female				1170.93	1198.94
Students				(1704.74)	(1709.66)
Ratio of					
International				-6681.02	-6677.41
Students				(2422.81)***	(2428.97)***
Ratio Alumni to					-971.26
Students					(1550.37)
Adj. R-Squared	0.73	0.76	0.78	0.79	0.78

Notes: (*: p-value<0.1,**: p-value<0.05, ***: p-value<0.01).

most complete models 4 and 5. The results confirm hypothesis 1 and 2 that tuitions of MBA programs have a positive relationship with return on investment measured in both post-MBA salary and percent in salary. This suggests that programs offering higher return on investment can indeed charge a price premium which students are willing to pay. Regarding the control variables, rank of MBA program is significant in all models, while overall university rank is significant in models 1 to 3. Both rank variables have negative coefficients as expected; lower rank values indicate higher ranked programs that can charge a price premium. Alumni and networking effects are also as expected. One-year programs have lower tuition than two-year ones and tuition increases with class size. This suggests that longer programs offer more networking opportunities as students stay with one another and have access to school resources longer. Additionally, public schools charge lower tuition, while tuition decreases as average age of students becomes older.

Table 3 shows the results from OLS regressions of tuition on the above independent variables and interactions with control variables. Results for individual independent and control variables are similar to above. Model 7 shows negative and significant interaction between MBA program rank and post-MBA salary at the 95% confidence level. This confirms hypothesis 3 that there

exists a stratification of schools, and their ability to charge price premiums is affected by return on investment to different extents. Higher ranked programs (lower values of the rank variable) experience greater effect of post-MBA salary on tuition. This suggests that it is easier for more prestigious programs to charge price premiums due to higher expected salaries of their graduates. On the other hand, less prestigious programs may not charge such price premium simply due to higher post-MBA salaries. The reason may lie in the stratified structure of MBA programs as theory suggests. Schools with different rankings engage in different competitive strategies and recruit different students. Students targeting highly ranked programs are willing to pay higher costs because of higher expected return on investment, while those choosing less prestigious programs look for other factors to justify the cost. Continent interacted with post-MBA salary also has significant relationship. North American schools have greater ability to charge price premiums, while European schools have less ability to do so.

   Figure 1 shows the interaction effect between program rank and post-MBA salary. Both variables are continuous and normalized with mean 0. To generate the interaction plot, program rank is converted into a categorical variable based on the normalized value. Consistent with above results, the graph shows that effect of post-MBA salary varies for programs with different ranking. For higher ranked programs (lower rank values), the slope is greater than the other two groups with less prestigious schools (higher rank values). Tuitions of the least prestigious programs experience the smallest effect of post-MBA salary. Additionally, more prestigious programs charge higher tuition across all levels of post-MBA salaries.

5. Concluding remarks

In this study, we examined the underlying factors associated with a high MBA tuition. Publicly available data was consolidated from online rankings. We found that high MBA tuition costs are positively correlated with percent increase in salary and post-graduation salary. This effect is even stronger for prestigious programs. Therefore, higher expected salary allows more programs to charge a price premium, and higher ranked programs can take advantage of this phenomenon even more. The reason for this phenomenon could lie in the stratification of schools. Prestigious schools value reputation more than less prestigious ones. They also compete for resources such as government funding and talented faculty with similarly ranked

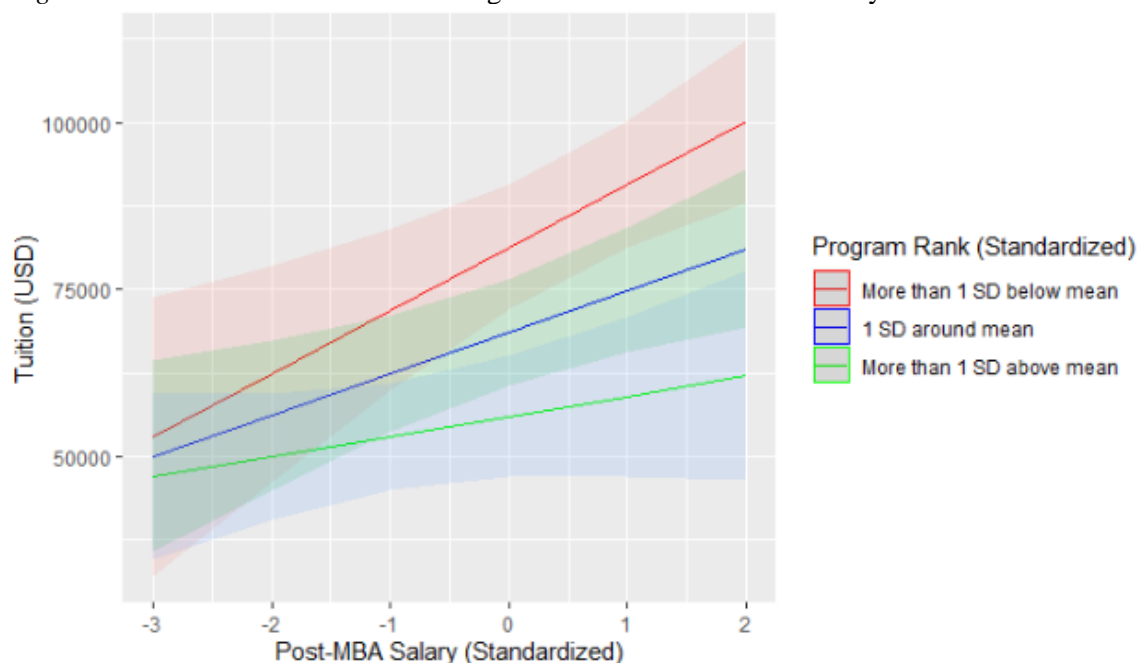*Figure 1*. Interaction Effect between Program Rank and Post-MBA Salary.

Table 3. OLS Linear Regression of Tuition with Interactions with Control Variables.

Variable	Model 6	Model 7	Model 8	Model 9	Model 10
Constant	71688.31	69070.0	71651.95	67771.5	73543.62
	(3975.55)***	(4090.43)***	(3959.7)***	(4093.65)***	(4100.83)***
Job Within 3	-2788.26	-2866.95	-3063.71	-2461.71	-2755.92
Months	(1495.36)*	(1472.16)*	(1502.36)**	(1456.03)*	(1484.43)*
Post-MBA	5448.35	6220.0	8272.42	3981.03	7606.67
Salary	(2108.49)**	(2104.72)***	(2914.74)***	(2109.72)*	(2462.67)***
Rank	-12500.69	-12643.6	-11765.8	-10495.86	-12662.84
	(2336.05)***	(2300.05)***	(2385.39)***	(2372.94)***	(2320.81)***
Overall					
University	-3678.13	-3111.04	-3581.82	-2967.19	-3342.93
Rank	(1393.87)***	(1395.94)**	(1389.99)**	(1375.57)**	(1398.16)**
One-Year	-7036.14	-5815.7	-6559.68	-5370.59	-6963.36
Program	(3892.7)*	(3871.29)	(3892.06)*	(3823.08)	(3864.15)*
Public	-8927.08	-7982.67	-8645.05	-6872.13	-8501.02
	(2684.34)***	(2676.7)***	(2681.19)***	(2702.45)**	(2676.77)***
Europe	-6618.33	-7958.28	-6953.05	-7070.98	-9180.72
	(4621.88)	(4589.59)*	(4609.58)	(4489.32)	(4839.55)*
North	37400.64	37005.09	36169.14	35742.21	33391.08
America	(4667.36)***	(4597.13)***	(4731.47)***	(4567.45)***	(5222.71)***
Class Size	4097.64	2593.7	4058.24	3196.9	3954.74
	(1758.07)**	(1860.94)	(1751.24)**	(1735.24)*	(1747.17)**
Age of	-47.22	-286.83	-607.66	-1178.41	-1020.61
Students	(2516.72)	(2479.35)	(2538.52)	(2474.66)	(2565.76)
Work	2448.31	2575.88	2526.56	2092.23	2241.46
Experience	(2455.62)	(2417.51)	(2446.42)	(2386.95)	(2440.63)
Ratio of					
Female	2200.05	1428.02	2218.8	1338.33	1440.56
Students	(1363.89)	(1387.63)	(1358.49)	(1357.62)	(1428.77)
Ratio of					
International	526.36	655.72	565.46	2812.71	816.41
Students	(2165.03)	(2131.63)	(2156.53)	(2247.74)	(2156.09)
Ratio Alumni	-3130.17	-2908.01	-3046.76	-2439.33	-2939.21
to Students	(1254.96)**	(1239.26)**	(1251.35)**	(1241.8)*	(1250.96)**
Rank x Salary		-3203.08			
		(1458.92)**			
Public x			-3739.52		
Salary			(2676.5)		
North					
America x				11454.9	
Salary				(3993.87)***	
Europe x					-5848.34
Salary					(3516.87)*
Adj. R-					
Squared	0.86	0.87	0.87	0.87	0.87

Notes: (*: p-value<0.1,**: p-value<0.05, ***: p-value<0.01)

schools. In addition, more prestigious schools are usually housed in highly recognized universities, so they may feel more pressure to be aligned with the overall ranking of the entire university. Moreover, reputation has a long-lasting and even permanent nature as suggested by theory. It takes decades for a school to build a high reputation, so it is more difficult for less prestigious programs to justify a price premium solely based on reputation. This phenomenon can also be seen from the student perspectives. Ranking is a primary reason for students choosing more prestigious programs, while those choosing less prestigious program may value other factors such as location, smaller class size, and more interaction with professors. These insights are important for decision makers at incumbent schools to gain insights into the factors that shape tuitions and identify new opportunities to stay competitive. The results can be extended to other industries, especially in the retail industry where multiple firms compete for limited market demand.

  A limitation of the study is the availability of data. It is difficult to collect data on all MBA programs, and most rankings only include top 100 or 200 MBA programs. All 133 MBA programs in the sample appear in at least one top 100 MBA ranking. In other words, this study concentrates on the top-ranked programs in the world and how they compete. An extension would be to include schools in a broader range of rankings. Secondly, most programs in the sample are in Europe and North America. Other continents such as Asia, Australia, South America, and Africa have budding markets for professional business programs. It would be a worthwhile extension to add more programs in those markets, or study them independently. Finally, with rapid adoption of online education, a variety of MBA programs are offered across schools worldwide. An insightful study would be to explore how magnitude and directions of effects found in full-time on-campus programs differ from part-time online or hybrid programs.

References

Becker, G. S. (1975). *Human Capital*, 2nd ed. New York: Columbia University Press.

Berger, J. (2019). Signaling can increase consumers' willingness to pay for green products. Theoretical model and experimental evidence. *Journal of Consumer Behaviour*, 18(3), 233-246.

Biswas, A. (2016). A study of consumers' willingness to pay for green products. *Journal of Advanced Management Science* Vol, 4(3).

Boccaletti, S., &Nardella, M. (2000). Consumer willingness to pay for pesticide-free fresh fruit and vegetables in Italy. *The International Food and Agribusiness Management Review*, 3(3), 297-310.

Bower, J. A., Saadat, M. A., & Whitten, C. (2003). Effect of liking, information and consumer characteristics on purchase intention and willingness to pay more for a fat spread with a proven health benefit. *Food Quality and Preference*, 14(1), 65-74.

Caswell, J. A., &Siny, J. (2007). Consumer demand for quality: Major determinant for agricultural and food trade in the future?. Available at SSRN 976707.

Cohn, E., and Geske, T. G. (1990). *The economics of education*. New York: Pergamon Press.

Costanigro, M., Bond, C. A., & McCluskey, J. J. (2012). Reputation leaders, quality laggards: incentive structure in markets with both private and collective reputations. *Journal of Agricultural Economics*, 63(2), 245-264.

Davies, S., & Zarifa, D. (2012). The stratification of universities: Structural inequality in Canada and the United States. *Research in Social Stratification and Mobility*, 30(2), 143-158.

Dolgopolova, I., &Teuber, R. (2018). Consumers' willingness to pay for health benefits in food products: a meta-analysis. *Applied Economic Perspectives and Policy*, 40(2), 333-352.

Gil, J. M., Gracia, A., & Sanchez, M. (2000). Market segmentation and willingness to pay for organic products in Spain. *The International Food and Agribusiness Management Review*, 3(2), 207-226.

Harvard Business School (2020). *MBA - Academic Experience*. Harvard Business School.www.hbs.edu/mba/academic-experience/Pages/default.aspx.

Jin, G. Z., & Kato, A. (2006). Price, quality, and reputation: Evidence from an online field experiment. *The RAND Journal of Economics*, 37(4), 983-1005.

Jung, J., & Lee, S. J. (2016). Influence of university prestige on graduate wage and job satisfaction: the case of South Korea. *Journal of Higher Education Policy and Management*, 38(3), 297-315.

Landon, S., & Smith, C. E. (1997). The use of quality and reputation indicators by consumers: the case of Bordeaux wine. *Journal of Consumer Policy*, 20(3), 289-323.

Landon, S., & Smith, C. E. (1998). Quality expectations, reputation, and price. *Southern Economic Journal*, 64, 628-647.

McMahon, W. W., and Wagner, A. P. (1982). The monetary returns to education as partial social efficiency criteria. *Financing Education: Overcoming Inefficiency and Inequity*. Urbana, IL: University of Illinois Press.

Melnik, M. I., &Alm, J. (2002). Does a seller's ecommerce reputation matter? Evidence from eBay auctions. *The Journal of Industrial Economics*, 50(3), 337-349.

Mincer, J. (1993). *Studies in Human Capital*. Brookfield, VT: Edward Elgar Publishing.

Paulsen, M. B. (1998). Recent research on the economics of attending college: Returns on investment and responsiveness to price. *Research in Higher Education*, 39(4), 471-489.

Paulsen, M. B., and Peseau, B. A. (1989). Ten essential economic concepts every administrator should know. *Journal for Higher Education Management* 5(1): 9-17.

Taylor, B. J. (2016). The field dynamics of stratification among US research universities: The expansion of federal support for academic research, 2000–2008. *Higher education, stratification, and workforce development*. Springer, Cham, 2016. 59-79.

Tranter, R. B., Bennett, R. M., Costa, L., Cowan, C., Holt, G. C., Jones, P. J., Miele, M., Sottomayor, M., &, J. (2009). Consumers' willingness-to-pay for organic conversion-grade food: Evidence from five EU countries. *Food Policy*, 34, 287-294.

Weakliem, D. L., Gauchat, G., & Wright, B. R. (2012). Sociological stratification: change and continuity in the distribution of departmental prestige, 1965–2007. *The American Sociologist*, 43(3), 310-327.