IS THERE ANY DIFFERENCE BETWEEN NIGHT AND DAY BUSINESS NEGOTIATIONS? A NONPARAMETRIC STATISTICAL ANALYSIS

Dr. Murillo de Oliveira Dias [1]

[1] Coordinator of DBA Programs at Fundação Getulio Vargas, Brazil;[2]Fundação Getulio Vargas, Brazil. [3]Fundação Getulio Vargas, Brazil. [1]Corresponding- Dr. Murillo de Oliveira Dias

Abstract— Negotiators are often challenged to engage in negotiations outside business hours. Is there any significant difference between day or night negotiations? In this article, a random sample of N=1,000 business negotiations was studied, divided into the following independent subsamples: (i) 624 business negotiations carried out during the day, and (ii) 376 at night. Two hypotheses were investigated through the Nonparametric Mann-Whitney U test to determine whether the (iii) value distribution and the (iv) duration of negotiation are the same, both day and night. Key findings pointed out a statistical significance in both cases, and the null hypotheses were rejected, meaning significant differences between day and night business negotiations. Finally, this article provides scholars with a new perspective on the business negotiation processes, as well as the implications of these findings for managerial practice, are discussed.

Keywords— Business negotiations, deal value, time of negotiation, negotiation process

I. INTRODUCTION

Usually, a party only has time available to negotiate outside business hours, and often, business negotiators have to negotiate remotely in a different time zone. In this article, the business negotiation process was investigated. The characteristics of the deal value and duration of business negotiations are not well-grounded, regarding day and night interactions. Therefore, after two years of collecting data from the day and night training sessions on business two-party role-play simulations — Type I negotiation [1], a random set of N=1,000 negotiations were explored.

Research on business negotiation activities has attracted scholars' attention ed regarding the negotiation processes [1]; [46]; [47]; [53]; [55]; [56]; [57-59], and [60]. The refore, the purpose of this article is to discuss how does time affects a business negotiation.

An experiment with two sets of independent data was conducted and further analyzed. The conclusions provide managers, scholars, practitioners, professors, instructors, business negotiators, among others, with new insights into the negotiation process.

First, the conceptual foundations of the negotiation process are discussed. Based on these constructs, a normality test was carried out and defined the nonparametric approach as suitable for this study, to be detailed in the next sections. Next, key findings are presented, and the results of the analyses are addressed. Finally, discussion and directions for further research compile the present study.

II. THEORETICAL RATIONALE

Negotiation is defined as "a social interaction process, which involves two or more persons, regarding their interests, identity, and cognition, and dedicated to reaching an agreement over the substance negotiated through mutual gains." [2] (p.29). It is also "a process of communicating back and forth for the purpose of reaching a joint decision." [47] (p. 20)

The business interactions investigated are Type I negotiations, supported by the Four-Type Negotiation Matrix, according to Dias [1], as depicted in Figure 1, as follows:

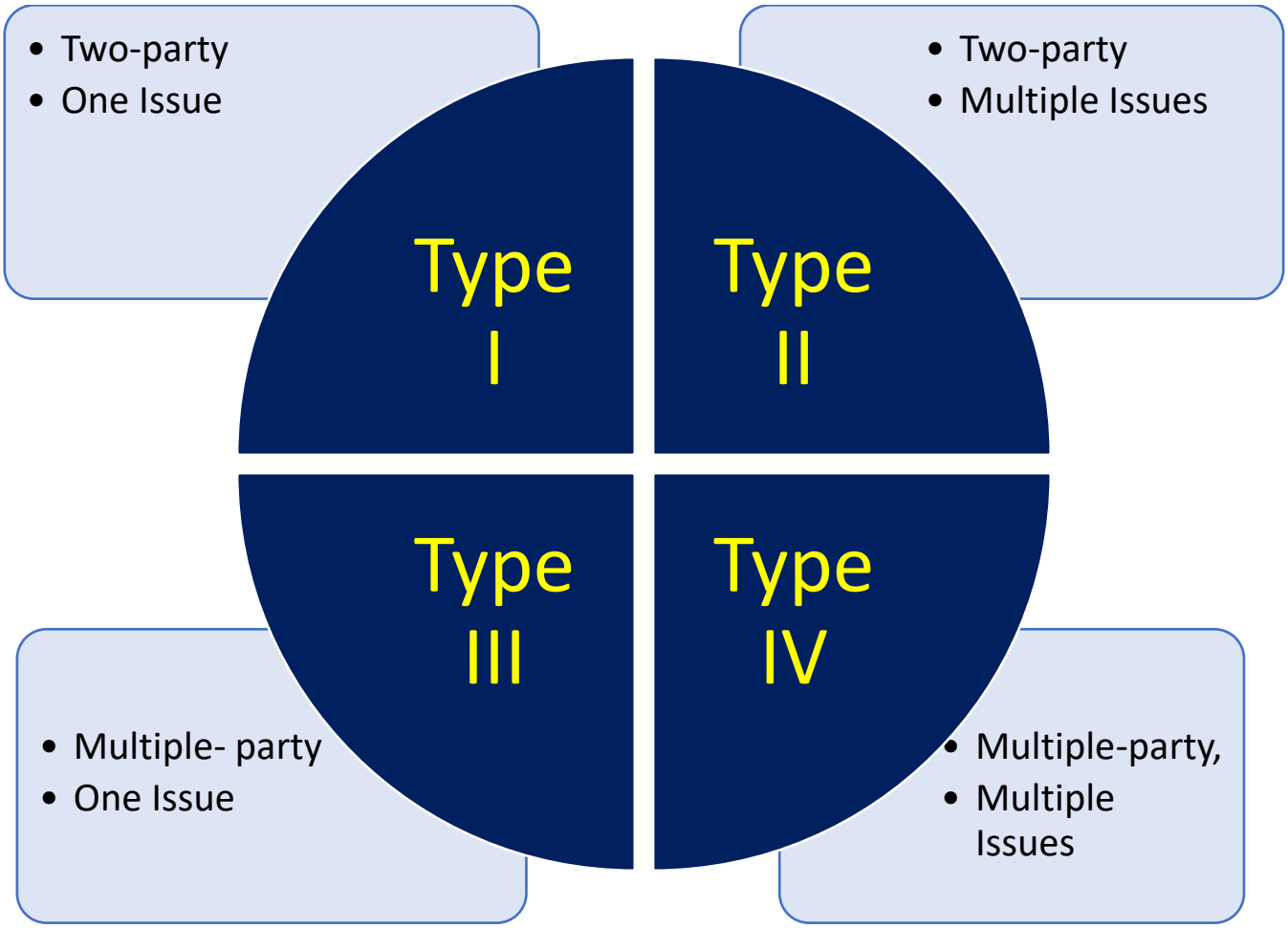

Fig.1: - The Four-Type Negotiation Matrix. Source: Dias, 2020. Reprinted under permission.

Observe in Figure 1, the Type I negotiation, adopted in the present research: two-party, one issue negotiated. In this study, the Shapiro-Wilk Test for Normality was initially applied for determining the normality of the data distribution. Figure 2 illustrates the equations for the test:

$$W = \frac{\left\{\sum_{i-1}^{n} a_i \left(x_{(n-i+1):n} - x_{i:n}\right)\right\}^2}{\sum_{i=1}^{n} (x_i - \bar{x})_2},$$

Fig.2: - Shapiro-Wilk Test for Normality equations

The Mann–Whitney U test equations are illustrated in Figure 3, where: n_2 is the sample size for sample 2, and R_2 is the sum of the ranks in the sample, as follows:

$$U_1 = R_1 - \frac{n_1(n_1+1)}{2}$$

or

$$U_2 = R_2 - \frac{n_2(n_2+1)}{2}$$

Figure 3: - Mann–Whitney U test equations.

The hypothesized relationships are based on the preceding theoretical rationale. Two statistical hypotheses followed an independent-samples Mann-Whitney, under the null hypothesis, investigated into two separate groups of negotiations: (i) negotiations conducted in business, daylight hours (from 9 AM to 5 PM), named DAY variable, and (ii) business negotiations conducted outside business hours (from 5 PM to 9 AM). The two groups are mutually exclusive groups, i.e., the results of negotiation in a given group do not affect the results of the other group negotiation. The hypotheses are stated as follows:

Hypotheses

H_o: negotiation deal values or duration are not affected by daytime (business hours negotiations) or nighttime (outside business hours negotiations) In sum, a negotiation process can be performed at any time, with no significant difference. Therefore, **H_0** = μDEALVAL=μDURATION, or H_0 = μDEALVAL- μDURATION= 0, where: *μDEALVAL* is the mean Deal Value negotiations, while *μDURATION* is the mean negotiation duration.

H_1: The distribution of deal value is the same in the categories of night/day. To sum up, the negotiation results are the same, no matter day or night.

H_2: The distribution of duration is the same in the categories of night/day. Therefore, the duration of the negotiation is not influenced by day or night time.

Finally, methods and research designs are presented in the next section.

III. METHODS AND RESEARCH DESIGN

In this research, a two-party role-play simulation was applied to 2,000 Brazilian business negotiators, from all Brazilian regions, all MBA students. In total, 35 cohorts were investigated. In total, N=1,000 business negotiations were investigated, separated into two groups: (i) 624 negotiations conducted in business hours (DAY); (ii) 376 negotiations conducted outside business hours (NIGHT). All data were analyzed through SPSS 26.

The negotiations were held from January 2018 to June 2020. Out of the 2,000 participants, 61 percent were male, 39 percent female, 75 percent in the middle to high-level management positions, and 15 percent occupied low-level management positions. In this sample, ten percent unemployed, from which 90 percent Caucasians, 60 percent married, 40 percent single or divorced; 80 percent is 25-45 years old, 12 percent above 45 years old; 35 percent speak a second language, besides Brazilian Portuguese (most-ly English or Spanish).

In all negotiations, there was no significant background noise that could somehow interfere with the negotiations. They occurred in calm, comfortable, and bright places. The negotiations occurred in working hours and outside business hours.

The same role-play simulation was then applied to all participants. The students read the cases and immediately after reading, engaged in the negotiations. They were instructed to register (i) the value deal, and (ii) the negotiation duration. At the end of the negotiation, they received instructions to hand over the data on the agreement, as illustrated in Figure 3, as follows:

Case processing summary

		Cases					
		Valid		Silent		Total	
	NIGHT / DAY	N	Percentage	N	Percentage	N	Percentage
DEAL VALUE	HIGHT	376	100,0%	0	0,0%	376	100,0%
	DAY	624	100,0%	0	0,0%	624	100,0%
DURATION	NIGHT	376	100,0%	0	0,0%	376	100,0%
	DAY	624	100,0%	0	0,0%	624	100,0%

Fig. 3: - Case processing summary. Source: SPSS 26

Regarding the normality tests, the Shapiro-Wilk test was chosen due to the sample size (N=1,000; N>100), as depicted in Figure 4, as follows:

Normality Tests

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	NIGHT / DAY	Statistics	Gl	It's getting you out of here	Statistics	Gl	Sig.
DEAL VALUE	NIGHT	,106	376	,000	,951	376	**,000**
	DAY	,240	624	,000	,272	624	**,000**
DURATION	NIGHT	,144	376	,000	,894	376	**,000**
	DAY	,144	624	,000	,884	624	**,000**

a. Lilliefors Significance Correlation

Fig. 4: - Normality tests. Source: SPSS 26

Observe in Figure 4 p=0,000 for both variables. (p<0,05). Therefore, the results' distribution is not normal, and the parametric tests could not be applied to the data set. Instead, presented in the next section, nonparametric tests suited best for analyzing the sample, as mentioned earlier.

Thus, the current study used the independent-samples Mann–Whitney U test was chosen to analyze the relationship between the hypotheses. The statistical significance attributed to this research encompassed a 95 percent confidence level. Therefore, the p-value is five percent (p=0,05). The negotiation process is also supported by Goffman's dramaturgical theory [48-49]. The negotiation process investigated involves at least two parties [1-10]; [20-31];[46]; [47]; [53]; [55]; [56]; [57-59], and [60].

Initially, the variable NIGHT/DAY was assigned to encompass two positions: "0", for NIGHT, outside business hours negotiations, and "1", for DAY, business hours negotiations. DEALVAL (deal value) and DURATION (duration time of the negotiation) are the dependent variables under investigation.

Finally, Group statistics were performed, and the Levene's Test for Equality of Variances, as illustrated in Figure5, as follows. In the next section, the results are displayed and further analyzed and discussed.

Variance Homogeneity Test

		Levene statistics	gl1	gl2	Sig.
DEAL VALUE	Based on average	1,581	1	998	,209
	Based on median	1,323	1	998	,250
	Based on median and adjusted gl	1,323	1	676,703	,250
	Based on trimmed average	1,385	1	998	,240
DURATION	Based on average	4,397	1	998	,036
	Based on median	5,510	1	998	,019
	Based on median and adjusted gl	5,510	1	995,889	,019
	Based on trimmed average	4,737	1	998	,030

Fig. 5: - Variance Homogeneity Test. Source: SPSS 26 extracted from the data source.

According to the Levene's Test for Equality of Variances, as illustrated in Figure 5, observe $p>0,05$ for DEALVAL and $p<0,05$ for DURATION.

IV. RESULTS AND ANALYSIS

In this section, the results are presented. The outcome of the descriptive, exploratory analysis is depicted in Figures 6 and 7, as follows:

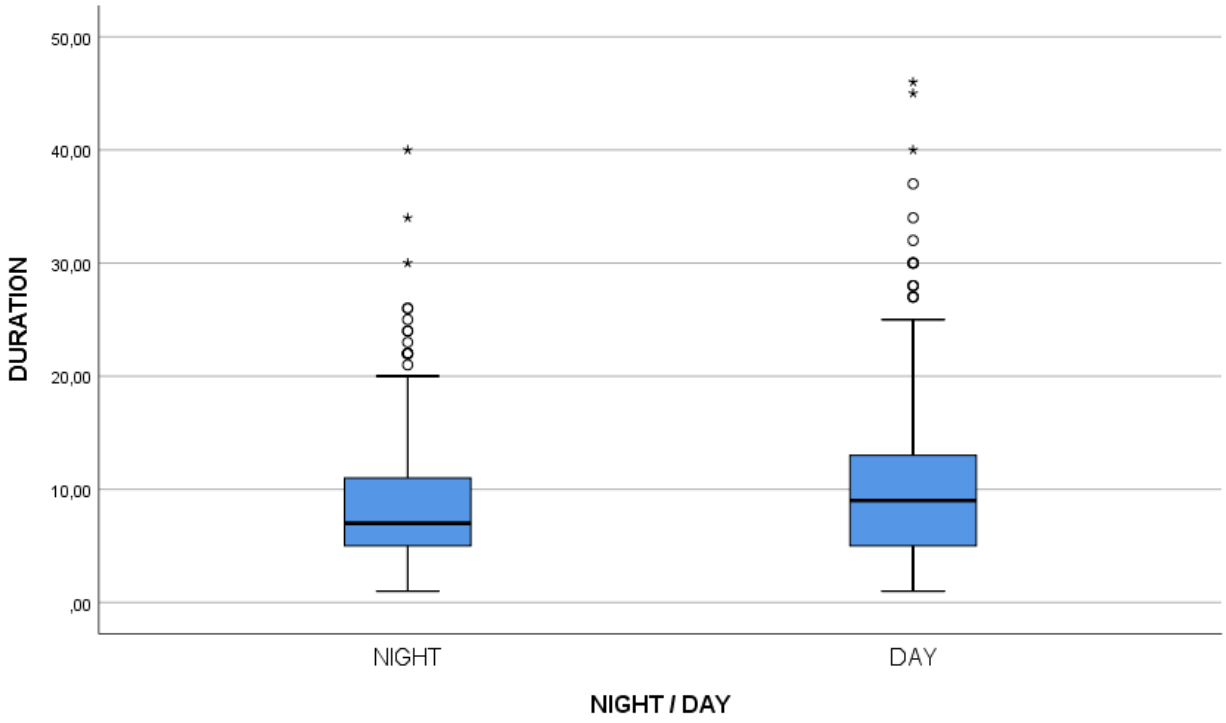

Fig. 6: - Boxplot. Source: SPSS 26 extracted from the data source.

The Mann-Whitney U Test Summary Independent Samples outcome is illustrated in the following Figure 7, as follows:

Mann-Whitney U Test Summary Independent Samples

Total N	1000
U de Mann-Whitney	**129648,000**
Wilcoxon W	324648,000
Test statistics	129648,000
Standard error	4419,149
Standardized Test Statistics	2,791
Asymptotic signal (two-sided test)	,005

Fig. 7:- Mann- Whitney U Test Summary Independent Samples. Source: SPSS 26.

Observe in Figure 7 the U-Mann-Whitney summary for independent samples Post. The coefficient for the Mann-Whitney U test is 129648,000. Figure 8 depicts the U-Mann-Whitney Posts, as follows:

Posts

	NIGHT / DAY	N	Middle Station	Sum of Ratings
DEAL VALUE	NIGHT	376	467,69	175852,00
	DAY	624	520,27	324648,00
	Total	1000		
DURATION	NIGHT	376	476,68	179232,00
	DAY	624	514,85	321268,00
	Total	1000		

Fig. 8:- Mann- Whitney U Test Summary Independent Samples. Source: SPSS 26.

Figure 9 illustrates the nonparametric Test statistics outcomes. Observe the Mann-Whitney test result for the variable DEAL VALUE of 104976,000, and for DURATION variable is 108356,000, with $p<0,05$ in both cases.

Test statistics[a]

	DEAL VALUE	DURATION
U de Mann-Whitney	**104976,000**	**108356,000**
Wilcoxon W	175852,000	179232,000
Z	-2,791	-2,029
Sig. significance (bilateral)	**,005**	**,042**

a. Grouping Variable: NIGHT / DAY

Fig. 9:- Mann- Whitney U Test Statistics. Source: SPSS 26.

Regarding the Deal Values from the data sample drawn (DEALVAL), and the time duration of the negotiations (DURATION), the Independent Mann-Whitney Test evidenced that the group NIGHT/DAY presented different performance when comparing outside and inside work business hours (day and night variables.

Regarding the Deal Values from the data sample drawn (DEALVAL), the Mann- Whitney U Test evidenced that the group DURATION performed differently in both groups, regarding the NIGHT / DAY variable. (U= 104976,000; $p < 0,05$). Therefore, the alternate hypothesis of $\mathbf{H_1}$ is statistically significant to an interval of confidence of 95 percent.

Regarding the Deal Values from the data sample drawn (DURATION), the Mann- Whitney U Test evidenced that the group DEAL VALUE performed differently in both groups, regarding the variable NIGHT / DAY. (U= 108356,000; $p < 0,05$). Therefore, the alternate hypothesis of $\mathbf{H_2}$ is statistically significant to an interval of confidence of 95 percent. Figure 10 depicts the Hypotheses test summary:

Hypotheses Test Summary

	Null hypothesis	Test	It's getting you out of here	Decision
1	The distribution of DEAL VALUE is the same in the categories of NIGHT / DAY.	Mann-Whitney U-Test Independent Samples	**,005**	Reject the null hypothesis.
2	The DURATION distribution is the same in the NIGHT/DAY categories.	Mann-Whitney U-Test Independent Samples	**,042**	Reject the null hypothesis.

Asymptotic significance is displayed. The significance level is .050.

Fig. 10:- Mann- Whitney U Test Statistics Hypotheses Test Summary. Source: SPSS 26.

Report

NIGHT / DAY		DEAL VALUE	DURATION
NIGHT	Mean	**24505,7181**	**8,7261**
	N	376	376
	Deviation Error	8101,31022	5,66834
DAY	Mean	**26731,0096**	**9,7003**
	N	624	624
	Deviation Error	21051,89805	6,51199
Total	Mean	**25894,3000**	**9,3340**
	N	1000	1000
	Deviation Error	17383,27848	6,22328

Fig. 11:- Means Report. Source: SPSS 26.

Observe in Figure 11, the variables' means: regarding the DEALVAL variable, the DAY group (BRL 26731,00) performed nine percent better than the NIGHT group (BRL 24505,71). Regarding the DURATION variable, the NIGHT group (8,72 min), negotiated faster than the DAY group (9,70 min). In total, both groups had a mean performance of BRL 25894,30, and 9,33 min average.

V. DISCUSSION

Theoretical Implications

The purpose of this research was to test the hypothesized relationships between the variables regarding the deal values and duration of the business negotiations under investigation, using data collected from negotiators participating in executive training sessions on MBA courses dispensed in Brazil. All the parameters estimated are significant, and a scrutiny of the hypothesized relationships in the negotiations provided consistent support on reinforcing the effectiveness of the group differences analyzed.

Negotiations conducted outside business hours, regarding the data set investigated, closed poorer but faster deals that the business negotiations performed within the business hours. Statistic significance was found in both cases ($p<0,05$), according to the Mann-Whitney U-tests results.

Evidence showed that negotiations speed the outcomes to a quick end in the night shift negotiations, however, leaving deal value over the bargaining table. The data set is unequal: while 624 business negotiations were investigated regarding the work hours (DAY), against 376 negotiations observed outside business hours (, the nonparametric tests neutralize the sample differences. Therefore, different groups have their internal validity preserved and can be compared, as illustrated in the following Figure 12:

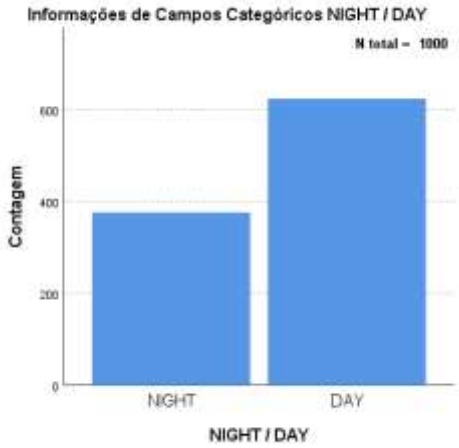

Fig. 12:- Means Report. Source: SPSS 26.

Implications for managerial practice

The subject under investigation has implications in many fields of managerial business field of study, for instance several industries, such as (i) brewing industry [5], [14]; (ii) aerospace and civil aviation [7], [12], [13], [27], [31], [32]; [22]; (iii) civil works [19]; (iv) mining industry [35]; (v) vitiviniculture industry [33]; (vi) public transportation [44]; (vii) debt collection negotiations [28],[36], [41]; (viii) streaming video [29], among others.

Negotiation practitioners can benefit from the research findings in countless ways. First, the two alternative hypotheses are supported; thus, try to avoid business negotiations outside business work hours: the results are lower than deal values than the working hour groups (DAY).

Finally, the findings support the importance of negotiation strategizing before value distribution [57-59]. The results also support the findings of Reinhart and Page [54], regarding "each negotiator's assessment of the other party's dependence may affect the amount of influence he or she attempts to exert during the negotiation." (p.27)

Study Limitations

This study is limited to the Brazilian business negotiation scenario. Other scenarios or countries may differ in the results. The results are limited to the results drawn from the data set available. Additionally, the MBA students negotiate in a controlled environment and may differ in behavior compared to real-life scenarios. The students may be more cooperative with their peers in the classroom than in a competitive business scenario due to the cooperative atmosphere promoted in the classroom. Finally, this research is limited to Type I negotiation [1]. Other types of negotiations may perform differently.

VI. FUTURE RESEARCH

Future research is encouraged to address Negotiations Type III, III, and IV [1]. Also, potential differences between parties regarding competitive business environments should be tested, as well as assess the impact of the negotiation environment on the interchangeability of negotiation types proposed by the four-type negotiation matrix. Finally, future research should investigate why the negotiations conducted outside business hours perform lower than the negotiations engaged in business hours. Also, an accurate study of the external validity of the alternative hypotheses is a suggestion for future research direction.

REFERENCES

[1] Dias, M. (2020) The Four-Type Negotiation Matrix: A Model for Assessing Negotiation Processes. *British Journal of Education, 8*(5), 40-57. doi: 10.6084/m9.figshare.12389627

[2] Dias, M., (2016). Factors Influencing the Success of Business Negotiations in the Brazilian Culture (Doctoral Thesis). ESC Rennes School of Business, France. doi: 10.13140/RG.2.2.18660.22407

[3] Dias, M. (2012). Two Case Studies on how to Deal Effectively with Fixed plus Variable Costs Contracts. *International Journal of Business and Management Studies*, *1*(3), 505-515. doi: 10.6084/m9.figshare.7832288

[4] Dias, M. (2018) Evolution of Cooperative Societies in Brazil. *International Journal of Community and Cooperative Studies*, *6*(4), 1-11. doi: 10.6084/m9.figshare.7834688

[5] Dias, M. (2018b). Heineken Brewing Industry in Brazil. *International Journal of Management, Technology and Engineering, 8*(9), 1304-1310. doi:16.10089/IJMTE2156

[6] Dias, M. (2018c). Light Vehicle Vehicle in Rio de Janeiro: Alternative to Public Transportation in Brazil? *Australian Journal of Science and Technology. 2*(4), 187-193. doi: 10.6084/m9.figshare.7833362

[7] Dias, M. (2019). Air Passenger Transportation in Brazil. *Global Scientific Journals*. *7*(10), 310-317. doi: 10.13140/RG.2.2.26800.71688

[8] Dias, M. (2019b). Brazilian Legislation on Executive Power: Provisory or Permanent Measures? *Scholars International journal of Law, Crime and Justice*, *2*(10), 336-341. doi: 10.36348/SIJLCJ.2019.v02i10.007

[9] Dias, M. (2019c). Is it Worth Competing at the Bargaining Table? *Global Scientific Journals*, *7*(9), 1-14. doi: 10.13140/RG.2.2.11557.45288

[10] Dias, M. (2019). People, Process, and Substance: Current Definitions on Negotiation. *International Journal of Commerce and Economics*, *1* (3), 1-9. doi: 10.13140/RG.2.2.15836.95360

[11] Dias, M. (2019d). Teaching Materials: Role Play Simulation On Individual Business Debt Collection In Brazil. *Global Scientific Journals, 7*(8), 844-859. doi: 10.11216/gsj.2019.08.26134

[12] Dias, M. (2020b). Air Transportation in Brazil: São Paulo Congonhas Airport. *Global Scientific Journals*, *8*(2), 3244-3252. doi: 10.11216/gsj.2020.02.35259

[13] Dias, M. (2020c). Case on Domestic Air Passenger Transport Market in Brazil. *The Journal of Middle East and North Africa Sciences*, *6*(4), 5-9. doi: 10.13140/RG.2.2.12166.73280

[14] Dias, M. (2020). Fatality, Malpractice, or Sabotage? Case on Craft Beer Poisoning in Minas Gerais, Brazil. *East African Scholars Multidisciplinary Bulletin, 3*(1), 26-31. doi: 10.36349/EASJMB.2020.v03i01.04

[15] Dias, M. et al. (2014). Dudalina S/A: Case Study on How to Overcome Succession Barriers on a Brazilian Family Business. *Business and Management Review*, *3*(12), 217-229. doi: 10.6084/m9.figshare.7834748

[16] Dias, M. et al. (2015). Brazilian Fashion Business Dudalina S/A: Case Revisited. *International Journal of Business and Management Studies, 4*(1), 11-24. doi: 10.6084/m9.figshare.7834730

[17] Dias, M. et. al. (2014). Domestic Workers' Rights in Brazil: Improvement of Labor Regulation. *Humanities and Social Sciences Review*, *3*(2), 9-21. doi: 10.6084/m9.figshare.7834745

[18] Dias, M. et. al. (2014). FIAT and Chrysler in Brazil: Anatomy of an Alliance. *International Journal of Business and Management Studies*, *3*(1), 1-13. doi: 10.6084/m9.figshare.7834739

[19] Dias, M., (2016). São Francisco River Transposition Civil Work: Challenges to the Brazilian Economy. *The International Journal of Business & Management*. *4*(12), 65-70. doi: 10.6084/m9.figshare.7834724

[20] Dias, M., and Aylmer, R. (2018) Are the generational interactions in the Brazilian workplace different from other countries? *Global Journal of Human Resource Managemen*t, 6(1), 9-25. doi: 10.6084/m9.figshare.7834634

[21] Dias, M., Duzert, Y. (2016). Fiat Chrysler Automobiles in Brazil: Alliance Consolidated. *The International Journal of Business & Management, 4*(2), 160-166. doi: 10.6084/m9.figshare.7834733

[22] Dias, M., Falconi, Davi. (2018), The Evolution of Craft Beer Industry in Brazil. *Journal of Economics and Business, 1*(4), 618-626. doi: 10.31014/aior.1992.01.04.55

[23] Dias, M., Lopes, R. (2019). Rail Transportation in Brazil: Challenges and Opportunities. *Arabian Journal of Business and Management Review (Kuwait Chapter)*, *8*(4), 40-49. doi: 10.13140/RG.2.2.27687.70568

[24] Dias, M., Lopes, R. (2020) Will the COVID-19 Pandemic Reshape our Society? *EAS Journal of Humanities and Cultural Studies* (*EAS J Humanit Cult Stud*). *2*(2), 93-97. doi: 10.36349/EASJHCS.2020.V02I02.013

[25] Dias, M., Lopes, R. (2020). Air Cargo Transportation in Brazil. *Global Scientific Journals*. *8*(2), 4180-4190.doi:10.13140/RG.2.2.30820.32648

[26] Dias, M., Lopes, R. (2020). Case on Cruise Ship Failure Services: Onboard. *Arabian Journal of Business and Management Review (Kuwait Chapter)*, *9*(1), 10-19 doi: 10.13140/RG.2.2.14280.26887

[27] Dias, M., Lopes, R., Teles, A. (2020) Could Boeing 737 MAX Crashes be Avoided? Factors that Undermined Project Safety. *Global Scientific Journals*, *8*(4), 187-196. doi: 10.11216/gsj.2020.04.38187

[28] Dias, M., Lopes, R., Teles, A. (2020) Will Virtual Replace Classroom Teaching? Lessons from Virtual Classes via Zoom in the Times of COVID-19. *Journal of Advances in Education and Philosophy, 4*(5), 208-213. doi: 10.36348/jaep.2020.v04i05.004

[29] Dias, M., Navarro, R. (2018). Is Netflix Dominating Brazil? *International Journal of Business and Management Review*. 6, No.1, 19-32, January 2018. ISSN: 2052-6407. doi: 10.6084/m9.figshare.7834643

[30] Dias, M., Navarro, R.; Valle, A. (2013). BMW and Brazilian Federal Government: Enhancing the Automotive Industry Regulatory Environment. *International Journal of Arts and Sciences*, 6(2), 551-567. doi: 10.6084/m9.figshare.7834742

[31] Dias, M., Teles, A. Duzert, Y. (2018) Did Embraer Succeed In Adopting The International Financial Reporting Standards (IFRS) In Brazil? *European Journal of Accounting, Auditing and Finance Research*, 6(2), 51-62. doi: 10.6084/m9.figshare.7834637

[32] Dias, M., Teles, A., Duzert, Y. (2018) Will Boeing Succeed with the Embraer Acquisition Operation, Despite the Brazilian Federal Government Golden Share Veto? *International Journal of Business and Management Review, 6*(2), 55-64. doi:10.6084/m9.figshare.7834718

[33] Dias, M.; Alves, H.; Pezzella, M. (2016) São Francisco Valley: Vitiviniculture Activities in the Brazilian Unthinkable Semiarid Climate and its Challenges. *International Journal of Business and Management Review* 4(10), 1-13. doi: 10.6084/m9.figshare.7834727

[34] Dias, M.; Aylmer, R. (2018) Is the Brazilian Civil Service reform about to succeed? *Global Journal of Political Science and Administration, 6*(2), 13-25. doi: 10.6084/m9.figshare.7834694

[35] Dias, M.; Davila Jr., E. (2018) Overcoming Succession Conflicts in a Limestone Family Business In Brazil. *International Journal of Business and Management Review, 6*(7), 58-73. doi: 10.6084/m9.figshare.7834703

[36] Dias, M.; Duzert, Y. (2017). Teaching Materials: Role Play Simulation on E-Business Negotiation. *European Journal of Training and Development Studies*, *4*(3), 1-15. doi: 10.6084/m9.figshare.7834655

[37] Dias, M.; Duzert, Y., Teles, A. (2018). Boeing, Brazilian Federal Government, And Embraer: Golden Share Veto and The Anatomy of a Joint Venture. *International Journal of Business and Management Studies*, *7(*2), 71–80. doi: 10.13140/RG.2.2.14972.18563

[38] Dias, M.; Krein, J.; Streh, E.; Vilhena, J. B. (2018) Agriculture Cooperatives in Brazil: Cotribá Case. *International Journal of Management, Technology and Engineering*, *8*(12). doi:16.10089.IJMTE.2018.V8I12.17.2243

[39] Dias, M.; Mori, V. (2018). Obstetric Violence in Brazil: an Integrated Case Study. *International Journal of Nursing, Midwife and Health Related Cases*, *4*(6), 20-28. doi: 10.6084/m9.figshare.7834274

[40] Dias, M.; Ramos, M. (2018). Credit Cooperatives in Brazil. *International Journal of Science and Research (IJSR)*, *7*(10), 598-603. doi: 10.21275/ART20191901

[41] Dias, M.; Ribeiro, Ana Paula; Lopes, Raphael (2019). When 'do not pay: A Winning Negotiation Case in Brazil. *Journal of Economics and Business*, *2*(2), 431-447. doi: 31014/aior.1992.02.02.99

[42] Dias, M.; Teles, A.; Pilatti, K. (2018) The Future of Privatization in Brazil: Regulatory and Political Challenges. *Global Journal of Politics and Law Research, 6*(2), 32-42. doi: 10.6084/m9.figshare.7834709

[43] Dias, M.; Teles, Andre (2018). Agriculture Cooperatives in Brazil and the Importance for The Economic Development. *International Journal of Business Research and Management*, *9*(2), 72-81. doi: 10.6084/m9.figshare.7832354

[44] Dias, M.; Teles, Andre (2018). From Animal Traction to LRV: Public Rail Transportation in Rio de Janeiro. *International Journal of Science and Research, 7*(11), 765-770. doi: 10.21275/ART20192818

[45] Dias, M.; Teles, Andre (2019). Facts and Perspectives on Craft Brewing Industry in Brazil. *International Journal of Management, Technology and Engineering, 9*(2), 1020-1028. doi:16.10089/IJMTE.2019.V9I21.18.28020

[46] Duzert, Y. (2015). *Newgotiation: Newgotiation for Life.* Kindle DX version. Retrieved from Amazon.com

[47] Fisher, R. Ury, W. and Patton, B (Editor). (1981). *Getting to Yes: Negotiating an Agreement without Giving in*. US: Random House.

[48] Goffman, E (1959). *The Presentation of Self in Everyday Life*. New York: Doubleday.

[49] Goffman, E. (1961). *Encounters: Two Studies in the sociology of interaction.* Indianapolis: The Bobbs-Merrill Company.

[50] Grbich, C. (2013). *Qualitative data analysis: An introduction* (2nd Ed.). London, UK: Sage.

[51] Lax, David. (1985) Optimal Search in Negotiation Analysis. *The Journal of Conflict Resolution*, *29*(3), 456-472.

[52] Moore, C.W. (2003). *The Mediation Process: Practical Strategies for Resolving Conflict*. San Francisco (California) and London: Jossey-Bass.

[53] Raiffa, Howard. (1982). *The Art and the Science of Negotiation: How to Resolve Conflicts and get the Best out of Bargaining*. Cambridge, MA: Harvard University Press.

[54] Rinehart, L. and Page, T. (1992) The Development and Test of a Model of Transaction Negotiation. *Journal of Marketing*, *56*(4), 18-32.

[55] Salacuse, J. (2008). *Seven Secrets for Negotiating with Government: How to Deal with Local, State, National, Or Foreign Governments – And Come Out Ahead*. New York: Amacom.

[56] Sebenius, J. (1992). Negotiation Analysis: A Characterization and Review. *Management Science*, *38*(1), 18-38.

[57] Susskind, L. and P. Field (1996), *Dealing with an Angry Public: The Mutual Gains Approach to Resolving Disputes*. New York: Free Press.

[58] Susskind, Lawrence; Cruikshank, Jeffrey. (1987). *Breaking the Impasse: Consensual Approaches to Resolving Public Disputes*. New York, NY: Basic Books.

[59] Susskind, Lawrence; Cruikshank, Jeffrey (2006) *Breaking Roberts Rules: The New Way to Run Your Meeting, Build Consensus, and Get Results*. New York: Oxford Press.

[60] Ury, W. (2015). *Getting to Yes with Yourself and Other Worthy Opponents*.MA: Harper Collins.

Mapa de Negociação - Caso Limite Orçamentário - Gabarito

Interesses (José Antônio)	Alternativas (José Antônio)	Opções (José Antônio)	Pessoas-chave
Psicológicos Satisfação pessoal com a obtenção da verba de aumento de 8% para implementar a nova organização aprovada pelo Comitê Executivo e manter a admiração que meu time tem por mim.	Marcar uma reunião diretamente com o CEO, ou o Comitê Executivo e apresentar todos os dados e o projeto completo, mostrando o apoio de outro setor muito importante. (alternativa arriscada)	Proposta de aumento de 8% (mínimo de 7,7%) Atingir as metas no ano seguinte Mostrar que ele aumentará a produtividade e lucratividade como aconteceu com a ABA LTDA A verba pode ser liberada em etapas, de acordo com o projeto, a fim de reduzirem-se os riscos da operação e manter o controle do processo sob a influência e controle diretos do Bruno. Apresentação de projeto detalhado de modificações no DRH	Vice-Presidente de orçamento e finanças – Bruno Vice-Presidente do Departamento de Recursos Humanos – José Antônio
Materiais Mostrar resultados satisfatórios no aumento da lucratividade e reformulação do departamento de RH da empresa.			**Local(is) da Negociação** Sede da empresa ou via zoom
Processuais Resolver de forma que fique bom DRH, acarretando aumento de produtividade e faturamento de toda a empresa.			**Critérios usados** Recursos viriam do aumento de produtividade da empresa em 3%, para serem realocados como investimento
Interesses (Bruno)	**Alternativas (Bruno)**	**Opções (Bruno)**	**Elementos-chave do acordo**
Psicológicos Preocupação com a repercussão política negativa a respeito de um aumento suplementar diferenciado para o departamento do José Antônio.	Procurar o presidente da empresa para buscar apoio político e não conceder os 8% ao José Antônio (alternativa arriscada)	Crescimento anual de investimento de 5% ou menos Reduzir o quadro de funcionários para compensar a verba extra Reorganizar os setores para que pessoas agreguem mais funções aos seus setores Conceder aumento escalonado entre 5% a 8%	Meta 8% (7,7% mínimo)
Materiais Manter todos os setores operacionais com baixo custo, mantendo a lucratividade da empresa. Manter os 5% de aumento.			Métrica Aumentos quadrimestrais de 1%. Se atingir a meta no primeiro quadrimestre, avançamos para o segundo, e assim por diante. Em caso de não atingimento da meta no primeiro quadrimestre e subsequentes, volta-se ao patamar inicial. (opcionalmente, aumentos semestrais de 1,5%)
Processuais Manter o mesmo critério para todos os departamentos da empresa. Conceder aumentos somente em reuniões com o conselho de administração da empresa.	**ZOPA (Estimada)** Entre 5% e 8% de aumento.		Prazo 1 ano, aumentos de 1% a cada quadrimestre) (opcionalmente,1 ano, aumentos de 1,5% a cada semestre)

Prof. Murillo Dias, DSc

VOLUME 14, ISSUE 6, 2020

http://xadzkjdx.cn/
Journal of Xidian University
https://doi.org/10.37896/jxu14.6/287
ISSN No:1001-2400

APPENDIX II - NEGOTIATION MAP SAMPLE