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HORIZONTAL EQUITY, SELF-EFFICACY, AND BUDGETARY SLACK: COMPARING AMERICAN AND BRAZILIAN CULTURES

Shawn L. Robey [(a)] *Mark A. McKnight* [(b)1] *Reshowrn B. Thomas* [(c)] *Amy L. Mings* [(d)]

[(a)] *Instructor, Romain College of Business, University of Southern Indiana, Evansville, Indiana, United States of America; E-mail: slrobey@usi.edu*
[(b)] *Professor, Romain College of Business, University of Southern Indiana, Evansville, Indiana, United States of America; E-mail: mamcknight@usi.edu*
[(c)] *Assistant Professor, Liberty University, Lynchburg, Virginia, United States of America; E-mail: rthomas155@liberty.edu*
[(d)] *Graduate Assistant, Romain College of Business, University of Southern Indiana, Evansville, Indiana, United States of America; E-mail: aloglesby@eagles.usi.edu*

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ABSTRACT

This study analyzed the effect cross-cultural differences in perceived horizontal equity and self-efficacy have on the creation of budgetary slack. This research addressed the gap in the role of ethical ideology in business by empirically examining the influence of culture on an individual's ethical ideology and their propensity to create budgetary slack. A total of 803 subjects included 413 individuals from America and 390 from Brazil. A series of analysis of variance testing identified statistical significance between horizontal equity and the creation of budgetary slack, as well as statistically significant differences between low/high years of experience and budgetary slack levels. Additional cross tabulations were included related to both horizontal equity as well as self-efficacy. The results highlight budgetary procedures that may impact a person's perceptions of fairness in pay compared to colleagues or peers with similar positions in organizations. Findings suggest that employees with more years of professional experience could benefit from education on potential negative unintended consequences of creating slack in their budgetary decisions. Our findings may be used by managers to gain awareness of this significance and take necessary steps to create equitable pay policies and budgetary targets. Study results indicated no statistical difference in slack levels between Americans and Brazilians.

INTRODUCTION

Braun and Tietz (2018) note that budgeting allows firms to allocate resources among different organizational subunits. Providing employees an opportunity to misreport private information is a disadvantage of employee participation in the budgeting process (Gallani et al., 2019). Perceptions of unfairness have previously been linked to increase misreporting by subordinates (Fisher et al., 2015). In resource allocation settings, individuals tend to value fairness and equity (Drake, Matuszewski, & Miller, 2014). Asymmetric information has been found to predict budgetary slack creation (Andriyansah & Zahra, 2017). Budgetary slack results from the misrepresentation of private information by demanding resources greater than the amount needed for project completion (Schreck, 2015). Essentially, budgetary slack allows for a better chance of meeting performance numbers as well as related incentives.

Departments or units that use budgetary slack on a routine basis could gain from intentionally reducing spending early in a budgeting cycle. This creates a potential secondary issue, which is the accumulation of unused resources to cope with undetermined future expenses for that division or department of the organization. Managers may be incentivized to create a "rainy day fund," which could lead to an increase in spending toward the end of the budget cycle. Incentives may not exist for managers to retain or save resources (Liebman & Mahoney, 2017). Any amounts not spent are sometimes reallocated, or even withheld from the budget altogether (Goldstein, 2005). Those in charge may view potential unspent resources as a lack of need, leading to decreased future funding (Jones, 2005). Any excess resource allocations in a department budget may be considered budgetary slack, as additional resources used are more likely to benefit the department

[1]*Corresponding author: ORCID ID: 0000-0001-9909-7401*

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than the overall organization (Church, Hannan, & Kuang, 2012).

Organizations that involve subordinates in the budgeting process can have advantages in planning, control, and resource allocation, as they can use budgeting considerations to reduce uncertainty, improve decision making, and positively impact profits. A potential unintended consequence, however, is that subordinates may perceive opportunities and benefits to using this information for personal benefit and at the expense of the company (Brink, Coats, & Rankin, 2018). Ethics Position Theory (EPT) posits that people's reactions in morally charged scenarios may be traced to variations in intuitive, personal moral philosophies. Further, it assumes that a person's levels of idealism and relativism determine their ethical ideology (Forsyth, 1980). Society tends to morally condemn those who intentionally lie, harm, or kill perceived innocents, theft, deny those in need, or fail to follow through on promises (Abratt, Nel, & Higgs, 1992). According to Forsyth, O'Boyle, and McDaniel (2008), a cross-cultural consensus is often lost when issues are vaguer.

Little attention has previously been given to the effects of culture on the budgeting process (Douglas & Wier, 2005; Douglas, HassabElnaby, Norman, & Wier, 2007; Harvey, 2015; Wu, 2005). Though Abdullah and Brink (2017) investigated the influence of horizontal equity, self-efficacy, and ethical position on the creation of budgetary slack, they did not consider how cultural differences affected individuals' perceptions of horizontal equity, self-efficacy, and ethical position.

LITERATURE REVIEW

Both Agency Theory and Ethical Position Theory provided the basis for the present research. Agency Theory attempts to explain why individuals engage in self-interested and/or opportunistic behavior (Baiman, 1982, 1990; Eisenhardt, 1989). As an example, one might create slack to improve performance evaluations for financial incentives, such as increases in compensation. In participative budgeting, a subordinate could have access to private information, as well as the opportunity to misrepresent that information. Abdullah and Brink (2017) suggest that in situations where both factors are present, agency theory would predict that self-interests to be sufficient to motivate a subordinate to participate in the creation of budgetary slack.

Ethics Position Theory (EPT) originates from Forsyth's (1980) distinctions between idealistic and relativistic ethics. An individual's ethical ideology is determined by their degree of idealism and relativism (Forsyth et al., 2008). Douglas and Wier (2005) found that idealism is negatively related to slack creation behavior, but relativism is positively correlated with these questionable budgetary practices. EPT asserts that people's reactions in morally charged situations can be linked to their moral philosophies (Forsyth, 1980). Additionally, Forsyth et al. (2008) suggest that an individual's judgments of right and wrong are developed over time.

Typically, in quantitative terminology, a budget is a detailed plan (Noreen, Brewer, & Garrison, 2014). Budgets have been described as the most frequently used management tool for strategic planning, facilitation of management tasks, and control (Kung, Huang, & Cheng, 2013). Thus, organizations are incentivized to hire managers who do not tend to create budgetary slack, as slack detracts from the economic interests of an organization. An inaccurate budget can negatively impact financing costs, working capital management, and capital budgeting decisions. These effects can be extended, as historical budgets are often used for future planning (Harvey, 2015).

Slack resources can be used to support projects that advance the self-interests of managers, as well as to boost the personal remuneration of managers via bonuses, etc. (Church, Kuang, & Liu, 2019). In such cases, the manager's benefits from budgetary slack are relatively indirect and may not be realized immediately (Shahzad, Mousa, & Sharfman, 2016). As a result, this budgeting practice places the company at a disadvantage (Hannan, Rankin, & Towry, 2006; Rankin, Schwartz, & Young, 2008).

Endenich and Trapp (2020) assert that the presence of budgetary slack implies an artificial overestimate of costs or an underestimate of revenues and profits to obtain more achievable targets, resulting in higher financial and non-financial rewards. Slack is a measure of the variance between budget estimation and actualization. To create slack, an individual either overestimates costs, underestimates expected revenue, or does both (Asri & Agung, 2018; Widanaputra & Mimba, 2014). This opportunistic use of data and information may be considered an ethical issue because the creation of slack may be inconsistent with role-related norms and desired virtues of managers (Maiga & Jacobs, 2007).

Although ethics continue to be relevant; however, ethical concerns might not decrease budgetary slack (Daumoser et al., 2018). Brunner and Ostermaier (2019) found that managers used peer dishonesty to justify dishonest budgeting behaviors. Arnold and Schreiber (2013) found fairness and reputational concerns to decrease budgetary slack. For example, perceived unfairness of pay has been shown as a negative effect on employee budgeting decisions (Guo et al., 2017).

Although Agency Theory posits that self-interests serve as a primary motivation in creating budgetary slack, Abdullah and Brink (2017) assert that social preferences and values influence decisions to participate in budgetary slack creation. Research additionally suggests that social motives might provide insights into the discrepancies between theoretical predictions and observed behavior (Sprinkle, 2003).

Horizontal inequity results from environments in which perceptions exist of unfair treatment compared to colleagues or peers with similar responsibilities (Matuszewski, 2010). Managers are less likely to create budgetary slack whenever they perceive fair budgetary procedures (Fisher et al., 2015). Given that pay relative to referents affects individuals' pay satisfaction more than absolute pay (Williams, McDaniel, & Nguyen 2006), pay equity and social comparison play an important role in equity evaluation (Drake et al., 2014).

When individuals perceive budgetary goals as fair and attainable, they are less likely to manipulate information to achieve personal rewards (Clor-Proell, Kaplan, & Proell, 2015). Additionally, perceived equity within reward systems has been linked to honesty in budgeting (Drake et al., 2014). Moreover, when individuals perceive inequity, negative reactions can result in efforts to restore the perception of equity (Clor-Proell et al., 2015).

Self-efficacy stems from social cognitive theory (Bandura, 1977). Self-efficacy is an individual's belief about their

confidence in completing a specific task or objective (Blewitt et al., 2018). Self-efficacy impacts individual choices regarding tasks, goals, and roles they perform (Razek & Coyner, 2014). In management scenarios, self-efficacy refers to the perceived ability to be effective and influential within the firm (Fast, Burris, & Bartel, 2014).

Research suggests that past performance can affect perceptions of self-efficacy (Abdullah & Brink, 2017). When inequity and high self-efficacy are present, the probability of slack creation increases; the opposite is true when equity is present. The probability of slack creation is lower when self-efficacy is high (Abdullah & Brink, 2017).

Research has increasingly examined the impact of cultural issues related to budgetary slack. Davila and Wouters (2005) used managers from a multinational corporation (MNC) to examine intentional budgetary slack. Douglas and Wier (2005) used Chinese and United States managers as a basis to compare ethical positions related to budgetary slack. Douglas et al. (2007) used Egyptian and United States managers to compare the ethical positions and national culture across budgeting systems. Brazilian culture has largely been ignored in the literature related to budgeting behavior.

Significance of the Study

Recent budgetary slack literature indicates the growing importance of an individual's ethical ideology on the propensity to create budgetary slack; however, there is minimal research that identifies the impact of cross-cultural differences on such practices. The present study investigates the gap in the role of ethical ideology by empirically examining the influence of culture on an individual's ethical ideology and their propensity to create budgetary slack.

Creating budgetary slack results in unfair advantages due to resources being misallocated (Brunner & Ostermaier, 2019). Misallocation of resources has been identified as detrimental to other units within the organization, investors, and other stakeholders (Douglas & Wier, 2000). Thus, creating budgetary slack is an ethical issue, as it is a phenomenon with a moral component for the decision-maker (Douglas & Wier, 2005; Stevens, 2002).

MATERIALS AND METHODS

Participant (Subject) Characteristics

Participants' average age was 35.03 years; the average years of professional experience was 14.36. A total of 323 (40.2%) males and 480 (59.8%) females participated. Seventeen (2.1%) completed some high school education, 150 (18.7%) completed their high school education, 120 (14.9%) completed some undergraduate education, 287 (35.7%) completed their undergraduate education, 61 (7.6%) completed some postgraduate education, and 168 (20.8%) completed their postgraduate education. Participants reported that 337 (41.8%) worked in management, professional or related occupations, 211 (26.2%) worked in sales and office occupations, and 255 (31.6%) worked in a government-related occupation.

Research Question & Hypotheses

The research question guiding the present research is "Do cross-cultural differences in American and Brazilian perceptions of horizontal equity and self-efficacy affect budgetary slack levels?" The following hypotheses extend to specific elements of the research question:

- H1: Americans will create the same levels of budgetary slack as Brazilians, regardless of equity or inequity.
- $H1_{01}$: There will be no significant differences in levels of budgetary slack between equity and inequity conditions.
- $H1_{02}$: There is no significant difference in the amount of budgetary slack between Brazilians and Americans.
- $H1_{03}$: There will be no differences in levels of equity between Americans and Brazilians.
- H2: Americans will create the same amount of budgetary slack as Brazilians, regardless of high self-efficacy or low self-efficacy.
- $H2_{01}$: There is no significant difference in levels of budgetary slack between high self-efficacy and low self-efficacy conditions.
- $H2_{02}$: There will be no significant difference in levels of budgetary slack between Brazilians and Americans.
- $H2_{03}$: Self-efficacy levels will show no difference in Americans and Brazilians.

Research Design

The research examined social and cultural motivations to partake in creating budgetary slack. Equity, self-efficacy, ethical position, and culture were independent variables in this research. Abdullah and Brink's (2017) case instrument was used to measure equity and self-efficacy variables. Regarding equity concerns, perceptions of fairness can influence the creation of budgetary slack (Daumoser et al., 2018). According to Guo et al. (2017), perceived unfairness in pay harms employees' budgeting decisions. Given this information, the research used compensation rates and cost savings to create equity and inequity treatments.

By embedding information regarding participants' past performance, department management, and their ability to accurately set budgets, perceptions of self-efficacy were created. High efficacy and low efficacy were two treatments used in this study. Primed with this information, participants judged their ability to complete the given task. Research suggests the intention to create budgetary slack is impacted by self-efficacy. Specifically, high self-efficacy, under inequity, leads to significantly higher intentions to create slack (Abdullah & Brink, 2017).

The dependent variable, the level of the slack created in the budget, as measured by Abdullah and Brink's (2017) case instrument. Participants were given a forecast of actual costs and slack was then measured by taking the difference between submitted costs and forecasted costs. Participants answered questions regarding their intentions to create budgetary slack. Answers enabled testing of the independent variable's effect on participants' propensity to deviate from the forecast.

To reduce the potential for human bias in the selection of participants and provide a highly representative sample of the populations being studied, a probability type of sampling strategy was used to select the participants. Specifically, simple random sampling was used.

A survey methodology was adopted to gather data utilizing a case study (Abdullah & Brink, 2017) and the EPQ (Forsyth, 1980) instrument with proven reliability and validity. Ideal sample size for each of the three populations was calculated by using the Qualtrics sample size calculator. A confidence level of 95%, a 5% margin of error, and respective populations were used to complete the calculation. Statistically significant sample size required 770 participants or 385 participants from each population. Qualtrics was employed to provide a random sample of 385 Americans currently living in the United States and 385 Brazilians currently living in Brazil. The target population was limited to business professionals between the ages of 18 and 65.

This quantitative quasi-experimental study required the employment of survey instruments to gather the data required to address and analyze the research question and indicated hypotheses. The following details data instruments, data collection techniques, and organization techniques that were employed in this study. A summary of the data collection process was also provided.

The framework of the survey instrument included a case study, EPQ, and demographic portion. After participants completed their survey, Qualtrics then provided the data needed to conduct the statistical tests. Once obtained, data was downloaded directly into SPSS to perform statistical analysis.

To gather data needed for this research, participants were asked to respond to Abdullah and Brink's (2017) case study. The dependent variable (budgetary slack level) and two independent variables (horizontal equity and self-efficacy) were measured by the case study. Participants were provided a hypothetical scenario, which described their role as a production manager at a manufacturing company. Given their role as managers, participants were given the task of setting a cost target based on their best estimation of the actual cost. Participants were provided with a private forecasting system that only the manager knew. Participants could use the forecast to set production cost targets for the period to whatever they wanted. The information provided to managers also included their compensation structure (horizontal equity) and past performance (self-efficacy). Participants were not aware of independent variable manipulations, which randomly created equal or unequal pay conditions and high or low prior performance conditions in budget setting accuracy.

Horizontal equity is the perception of fair treatment among colleagues or peers. Horizontal inequity is present when there is a perception of unfair treatment among colleagues or peers with the same responsibility (Matuszewski, 2010). Equity influences budgeting settings; specifically, the likelihood of budgetary slack creation decreases as the perception of fairness in budgetary procedures increases (Fisher et al., 2015). Participants were informed that peers did not differ regarding gender, work experience, job description, responsibility, and workload. Managers were compensated with a fixed wage and a share of cost savings. Cost savings were defined as the excess of targeted production costs over actual production costs.

Horizontal equity was manipulated to create an equal or unequal pay condition. To create a horizontal equity condition, all production managers received a fixed salary and an equal share in the cost savings. The compensation equation, under horizontal equity, was: 50% of cost savings (target cost - actual cost) per production cycle + fixed wage. Under horizontal inequity, participants were told that the fixed salary was the same for all production managers. Under horizontal inequity, production managers received 50% share of their cost-savings while peers received 95% share of cost-savings.

Self-efficacy is an individual's belief about their capacity to complete a specific task or objective (Blewitt et al., 2018). According to Razek and Coyner (2014), self-efficacy affects the choices made by an individual regarding tasks, goals, and roles performed. A strong positive connection exists between self-efficacy and ethical decision-making (Blewitt et al., 2018; Welch, 2013). This is consistent with Abdullah and Brink (2017) given the review of participants' perception of self-efficacy regarding prior performance as it relates to budget setting accuracy.

Self-efficacy was manipulated to create high or low self-efficacy conditions. Participants in a high self-efficacy condition were told they were excellent at working efficiently and accurately targeting costs. Furthermore, participants were informed of their exceptional ability as a production manager and their mastery of knowledge required to manage production effectively and successfully. Participants in a low self-efficacy treatment condition were told they did not have a good track record of efficiency or accuracy and were informed of their poor prior performance as production managers.

The case study provided participants with a forecast of actual production costs. The budgetary slack variable is the difference between the managers's submitted production cost target and the forecast of actual production costs.

Participants were asked questions about the production cost targets set in response to three specific forecasts. Actual forecasts of production costs were $225,000, $400,000, and $575,000. Participants were able to submit production cost targets from $200,000 to $600,000. The production cost targets provided participants with opportunities to create low, medium, or high levels of budgetary slack. To obtain a measure of budgetary slack, the actual forecast was subtracted from the production cost target indicated by the participant.

RESULTS AND DISCUSSIONS

Statistics and Data Analysis

A one-way ANOVA was used to determine if a significant difference in budgetary slack levels created by Americans and Brazilians under horizontal equity (inequity) exists. The one-way ANOVA ran with the alpha for determining a significant difference of $p < .05$. An x^2 test of independence ran on the equity and inequity populations with the alpha for determining significant differences $p < .05$. The independent variable of equity (X1) came from the case study (Abdullah & Brink,

2017). Creating an equal or unequal pay condition enabled variable manipulation. Participants were randomly assigned to one of the conditions.

A one-way ANOVA was used to determine if a significant difference in budgetary slack levels created by Americans and Brazilians under high (low) self-efficacy exists. The one-way ANOVA ran with the alpha for determining significant difference $p < .05$. A x^2 test of independence ran on the high self-efficacy and low self-efficacy populations with the alpha for determining significant difference $p < .05$. The independent variable of self-efficacy (X2) came from the case study (Abdullah & Brink, 2017). Creating a high or low prior performance condition in budget setting accuracy enabled variable manipulation.

Hypothesis One

Two ANOVA tests were performed to address hypothesis 1. The first determined if there was a statistically significant difference in levels of budgetary slack between equity and inequity. The second determined if a significant difference in budgetary slack levels created by Americans and Brazilians under horizontal equity (inequity) exists.

Table 1 illustrates the first ANOVA test results. The p-value of .027 indicates a statistically significant difference between equity/inequity conditions and budgetary slack levels. Results suggest the null hypothesis, that there is no significant difference in levels of budgetary slack between equity and inequity conditions, should be rejected.

Table 1. ANOVA – Mean Slack

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	25897.991	1	25897.991	4.892	.027
Within Groups	4240883.203	801	5294.486		
Total	4266781.194	802			

According to Christ et al. (2012) and Presslee et al. (2013), the framing of rewards has a pronounced effect on employee behavior. When a negative perception of pay fairness is present, employee budgeting decisions are negatively impacted (Daumoser et al., 2018; Drake et al., 2014; Guo et al., 2017). Managers are unlikely to participate in slack creation whenever they have a fair perception of budgetary procedures (Fisher et al., 2015; Guo et al., 2017). Furthermore, Guo et al. (2017) suggest high vertical pay dispersion results in greater misreporting by subordinates compared to when vertical pay dispersion is low. When employees perceive unfairness, they will respond by misreporting information. This setting increases incentives for employees to commit fraud (Clor-Proell et al., 2015; Drury, 2018). Table 2 shows the mean differences in slack levels for low equity and high equity groups. Consistent with existing literature, low equity treatment created nearly twice the amount of slack compared to the high equity group. Specifically, the low equity group created nearly $21,000 of slack, whereas the high equity group created less than $10,000 of slack.

Table 2. Descriptives – Mean Slack

					95% Confidence Interval for Mean			
	N	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound	Minimum	Maximum
Low Equity	396	20.7130	72.96307	3.66653	13.5046	27.9213	-184.33	200.00
High Equity	407	9.3538	72.56825	3.59707	2.2826	16.4250	-200.00	200.00
Total	803	14.9556	72.93954	2.57398	9.9030	20.0081	-200.00	200.00

Table 3 provides the results of the second ANOVA. The p-value is .989, and not statistically significant in terms of a difference between budgetary slack for Americans and Brazilians.

Table 3. ANOVA – Mean Slack

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.074	1	1.074	.000	.989
Within Groups	4266780.120	801	5326.817		
Total	4266781.194	802			

Table 4 shows the mean differences in slack levels for the American and Brazilian groups. American and Brazilian participants created nearly the same levels of budgetary slack of nearly $15,000. These results are inconsistent with the literature.

Even within the same organization, cultural differences promote culturally specific ways of working (Hofstede & Tipton Murff, 2012). How cultures view budgetary slack is expected to differ as one may not see the same function of budgeting from the perspective of another. For example, differences between individualist societies and collectivist societies impact attitudes towards budgetary slack (Wu, 2005). Unlike Brazil, the United States has a very individualistic society. This is reflected by the United States scoring 91 on IDV (Hofstede Insights, 2018). Brazil is on nearly the complete opposite side of the spectrum, scoring 38. This lower score means Brazilian society members are part of large, cohesive groups (Hofstede Insights, 2018; Trompenaars & Hampden-Turner, 2020).

Another key dimension where both cultures differ is uncertainty avoidance. Uncertainty avoidance reflects how well people in society handle the unknown. Brazil, like the majority of Latin America, had a high UAI, scoring 76. The United States, however, seems to view rules and structure differently. With a UAI score of 46, it is apparent the United

States does not require a lot of rules (Mind Tools, 2017; Hofstede Insights, 2018).

The communication of private information by subordinates is also influenced by dimensions of collectivism and uncertainty avoidance. Collectivist and high uncertainty avoidance cultures have been shown to misreport less than individuals from individualistic and low uncertainty cultures, in the absence of face-to-face interaction (Chow et al., 1998). In the case of Americans and Brazilians, however, this does not appear to be the case. As shown, both cultures created nearly the same amount of budgetary slack.

Table 4. Descriptives – Mean Slack

					95% Confidence Interval for Mean			
	N	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound	Minimum	Maximum
American	413	14.9911	71.33301	3.51007	8.0912	21.8910	-186.00	200.00
Brazilian	390	14.9179	74.69493	3.78232	7.4816	22.3543	-200.00	200.00
Total	803	14.9556	72.93954	2.57398	9.9030	20.0081	-200.00	200.00

To investigate how Americans and Brazilians differ and as a check on equity manipulation, an x^2 statistic was conducted to determine whether they have high or low equity. As shown in Table 8, assumptions were checked and met. Within the Expected Count values shown, there was confirmation all cells had an expected value greater than 5. Table 5 below shows Pearson x^2 and indicates results related to high or low equity for Americans and Brazilians are not significantly different (x^2 = .485, df = 1, N = 803, p = .486). Phi, which indicates the strength of the association between the two variables, is .025. In equity and culture, there was not a significant association. Based on these results, the null hypothesis cannot be rejected as there is no statistical difference in levels of equity between Americans and Brazilians. This supports the success of the intended manipulation.

Table 5. Equity - Culture Cross tabulation

			Culture		
			American	Brazilian	Total
Equity	Low	Count	188	168	356
		Expected Count	183.1	172.9	356.0
		% within Culture	45.5%	43.1%	44.3%
	High	Count	225	222	447
		Expected Count	229.9	217.1	447.0
		% within Culture	54.5%	56.9%	55.7%
Total		Count	413	390	803
		Expected Count	413.0	390.0	803.0
		% within Culture	100.0%	100.0%	100.0%

Table 6. Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.485[a]	1	.486		
Continuity Correction [b]	.391	1	.532		
Likelihood Ratio	.485	1	.486		
Fisher's Exact Test				.523	.266
Linear-by-Linear Association	.485	1	.486		
N of Valid Cases	803				

a. 0 cells (.0%) have an expected count of less than 5. The minimum expected count is 172.90.
b. Computed only for a 2x2 table

Hypothesis Two

Two ANOVA tests were performed to address Hypothesis Two. Any statistically significant differences in levels of budgetary slack between high self-efficacy and low self-efficacy were determined by the first ANOVA test. The second ANOVA test also determined if levels of budgetary slack between Brazilians and Americans were statistically significant. Results of the second ANOVA can be seen in Table 7 and Table 8. In addition, an x^2 test determined if levels of self-efficacy between Americans and Brazilians were different. Table 7 below shows the results of the first ANOVA test. The p-value for the F-statistic is .348. This p-value is considerably larger than the alpha of .05, which indicates there is not a statistically significant difference between high/low self-efficacy conditions and budgetary slack levels. Based on these results, the null hypothesis cannot be rejected as there is no significant difference between high/low self-efficacy conditions and budgetary slack levels.

Table 7. ANOVA – Mean Slack

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4693.528	1	4693.528	.882	.348
Within Groups	4262087.666	801	5320.958		
Total	4266781.194	802			

According to Abdullah and Brink (2017), an individual's past performance can affect their perception of self-efficacy, which can lead to a higher propensity to create budgetary slack. Results of their study suggest the probability of slack creation was lower (higher) when self-efficacy was high, and equity was high (low). A strong positive connection between self-efficacy and ethical decision making is also suggested by research (Welch, 2013). Self-efficacy and its significant and positive relationship were confirmed again by (Blewitt et al., 2018). Table 8 below shows the mean differences in slack levels for the low self-efficacy and high self-efficacy groups. Results were not consistent with the literature as there was no statistically significant difference between high/low self-efficacy conditions and budgetary slack levels. The low self-efficacy group created a slack level of nearly $12,600, whereas the high self-efficacy group created a more than $17,000 in slack. Participants in the high self-efficacy treatment created a mean slack level of nearly $5,000 higher than participants in the low self-efficacy treatment. This effect was in the right direction; however, based on prior research, it was not statistically significant. Previous research suggests an efficacy effect may be tied to an equity effect.

Table 8. Descriptives – Mean Slack

				95% Confidence Interval for Mean			
	N	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound	Minimum	Maximum
Low Self Efficacy	411	12.5945	73.85702	3.64310	5.4330	19.7560	-200.00	200.00
High Self Efficacy	392	17.4311	71.97604	3.63534	10.2839	24.5784	-200.00	200.00
Total	803	14.9556	72.93954	2.57398	9.9030	20.0081	-200.00	200.00

An x^2 statistic was conducted as a check on the self-efficacy manipulation to investigate if Americans and Brazilians differ on whether they have high or low self-efficacy, As Table 9 below shows, assumptions were checked and met. Within the Expected Count values shown, there was confirmation all cells had an expected value greater than 5. Pearson x^2 results, shown in Table 10 below, indicate Americans and Brazilians are not significantly different on whether they have high or low self-efficacy (x^2 = .038, df = 1, N = 803, p = .845). Phi, which indicates the strength of the association between the two variables, is .007. There was no significant association between self-efficacy and culture. Based on these results, the null hypothesis cannot be rejected as there is no significant difference in levels of self-efficacy between Americans and Brazilians. This supports the success of the intended manipulation.

Table 9. Self Efficacy – Culture Cross tabulation

			Culture		
			American	Brazilian	Total
Self-Efficacy	Low	Count	168	156	324
		Expected Count	166.6	157.4	324.0
		% within Culture	40.7%	40.0%	40.3%
	High	Count	245	234	479
		Expected Count	246.4	232.6	479.0
		% within Culture	59.3%	60.0%	59.7%
Total		Count	413	390	803
		Expected Count	413.0	390.0	803.0
		% within Culture	100.0%	100.0%	100.0%

Table 10. Chi-Square Tests

			Asymptotic Significance	Exact Sig.	Exact Sig.
	Value	df	(2-sided)	(2-sided)	(1-sided)
Pearson Chi-Square	.038[a]	1	.845		
Continuity Correction[b]	.015	1	.902		
Likelihood Ratio	.038	1	.845		
Fisher's Exact Test				.886	.451
Linear-by-Linear Association	.038	1	.845		
N of Valid Cases	803				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 157.36.
b. Computed only for a 2x2 table

The perceived unfairness of pay harms budgeting decisions (Daumoser et al., 2018; Drake et al., 2014; Guo et al., 2017). This setting increases incentives for employees to commit fraud (Clor-Proell et al., 2015; Drury, 2018). Likewise, as a response to perceived unfairness, employees will misreport information. Hypothesis one examined American and Brazilian budgetary slack levels under equity and inequity treatments. Based on these results, the first null hypothesis was rejected, while the second and third null hypotheses cannot be rejected.

CONCLUSIONS

This research contributed to filling the knowledge gap concerning the effect cultural differences in non-pecuniary motivations have on an individual's decision to create slack. This quantitative study also provided statistical results indicating significance between horizontal equity and the creation of budgetary slack. Our findings may be used by managers to gain awareness of this significance and take necessary steps to create equitable pay policies and budgetary

targets. Further, this research addressed the gap in the role of ethical ideology in business by empirically examining the influence of culture on an individual's ethical ideology and their propensity to create budgetary slack. Study results indicated no statistical difference in slack levels between Americans and Brazilians. If a company wants honest budgetary reporting, it must foster and reinforce a business culture of honesty.

Recommendations for Further Study

This study contributed to the current gap in the literature concerning the effect cross-cultural differences non-pecuniary motivations have on an individual's decision to create slack. Furthermore, this research attempted to address the gap in the role of ethical ideology in business by empirically examining the influence of culture on an individual's ethical ideology and their propensity to create budgetary slack. Several opportunities for future research are available from this study. The following are recommendations for further research.

The first recommendation for further research is to examine the interactions between horizontal equity and self-efficacy and their effect on budgetary slack. Like Abdullah and Brink (2017), the study manipulated horizontal equity and self-efficacy to examine the effect each independent variable had on the dependent variable, budgetary slack. However, the study did not examine the interactions among independent variables and their effect on budgetary slack. Again, based on prior research, and efficacy effect may be tied to an equity effect.

Based on cultural dimensions, the second recommendation for further study is to take a fine-grain approach to culture and examine budgetary slack. The study used self-reported data, which allowed participants to self-identify their culture as American or Brazilian. The study did not specifically measure the cultural dimensions of each participant. Future research could specifically measure the dimensions of collectivism and uncertainty avoidance and the related effect on budgetary slack.

Our results suggest that years of professional experience are positively correlated with budgetary slack levels. This raises the question as to other situational factors which may be driving this behavior (organizational culture, employee workplace norms, and/or prolonged experienced inequity). The third recommendation for further study is to examine the effect time has on the propensity for individuals to create budgetary slack. This research could examine a culture's effect on time regarding creating budgetary slack and the propensity for individuals to behave like their counterparts. Future research could also further examine how years of professional experience influence budgetary slack.

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