

# Link between budgetary participation-financial performance of hotel companies

**Cédric Ghislain Kabore**

Associate researcher at Centre for Research in Organizational Management (CREGO EA 1773), Institutes of Business Administration (IAE Dijon), University of Burgundy, Dijon, France

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**ABSTRACT**

The first objective of this research is to study the link between budgetary participation and the financial performance of French hotel companies. The second objective is to contribute to the management of hotel companies through the suggestions arising from the research results. Using structural equations, we modeled 113 responses from hotel managers in France. The results suggest a mediation of commitment to budget objectives, which motivates the use of information and communication technologies, leading to financial performance. Most studies on the subject focus on overall or managerial performance. This article offers the literature an appreciation of the financial performance of hotel companies. Next, this article highlights the use of structural equations to clarify the link. Finally, this research introduces managers to the usefulness of budgetary participation and the understanding of the managerial mechanism leading to financial performance. It answers managers' questions about the process for achieving sustainable financial performance.

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**Corresponding Author:**

Cédric Ghislain KABORE,  
Department of Tourism,  
Culture and Hospitality (ESTHUA),  
University of Angers,  
7 All. François Mitterrand, 49100 Angers, France,  
Email :kaboreghislain62@gmail.com

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**1. Introduction**

The COVID-19 pandemic is known to have severely damaged the hospitality industry (Lin & Chen, 2022). If companies in the hotel sector are looking for financial profitability, they must meet the challenge of responding to sustainable performance even in crisis situations such as COVID-19. It is not always easy to face competition. Management control through budget participation could be one of the tools that could allow sustainable financial performance in French hotels.

Budget participation is intended to enable employees to play an active role in the preparation and management of budgets (Milani, 1975). Financial performance considers financial indicators such as earnings, return on assets and return on investments (Richard et al., 2009). The impact of budget participation on performance is controversial (Jermias & Setiawan, 2008; Mia, 1988), particularly in the understudied hotel sector (Chenhall, 2003). In addition, most research is limited to studying the link between managerial or overall performance and budget participation (e.g., the study by Lunardi et al., 2020), and others are interested in the link between employee performance and budget participation (e.g. the study by Prihantari & Astika, 2019). Although these variables often include some performance indicators, this does not make it possible to understand in a specific way the link between budget participation and financial performance, while the financial issue is most often at the center of hotel management.

This research offers two implications, namely managerial and theoretical. On the managerial front, it can contribute to enhancing and optimizing the budgetary process with the aim of improving the financial

performance of hotel businesses. From a managerial perspective, it provides insights into the measures to be taken in budgetary decisions, clarifying whether managers should be involved and how to do so. Ultimately, as a managerial implication, this article provides a perspective on reality that eludes managers, as the profound reality escapes direct observation. The scientific explanation involves conceptualizing the functioning of generative mechanisms responsible for observed events (Avenier & Thomas, 2012).

As a theoretical implication, this article draws on social cognitive theory (Bandura, 1988) and agency theory (Jensen & Meckling, 1976), presenting a conceptual framework to elucidate how budgetary participation influences financial performance through cognitive and agency mechanisms. This enriches the literature on management by integrating these perspectives into the specific context of the hotel industry.

This research therefore aims to clarify the links between budget participation and the financial performance of hotel companies, by mobilizing social cognitive theory and that of the agency. To do this, we analyze 113 responses from hotel managers in France. The results suggest a dual mediation of commitment to budget target and information technology for communication. On the one hand, the direct relationship between these two variables remains positive. On the other hand, the direct relationship between budgetary participation and financial performance is positive and significant. This result clearly helps to show that budget participation is an important tool for achieving financial results in hotel companies. Our results also suggest a cognitive (Bandura, 1988) and agential (Jensen & Meckling, 1976) mechanism stimulating the agent to share information with the use of technology. In order to demonstrate the validity of these contributions, a literature review identifies intermediate variables of the relationship studied, which allows us to formulate hypotheses. To test these hypotheses, we conducted a cross-sectional study.

## 2. Research Method

The study of the link between budgetary participation and financial performance is based on the cognitive framework and that of the theory of the agency to assume mediators. Bandura (1988) proposes social cognitive theory based on the interaction between personal, environmental and behavioral factors and Jensen & Meckling (1976) proposes agency theory to explain the links of certain variables in management sciences. Cognitive and agency mechanisms associated with studying the link between budgeting participation and financial performance may include commitment to budget targets and the use of technology in information sharing. Thus, a participation in the budget could develop a cognitive mechanism relating to organizational commitment which could in turn have a link with financial performance with the use of information technology for information sharing as a mediator. In this context, the budget participation allows the agent who undertakes himself to use the technology to provide reliable information.

### Hypothesis development

The first hypothesis examines the relationship between budget participation and commitment to budgetary targets (Link 1, Figure 1). Based on social cognitive theory, we assume that budget participation increases managers' commitment to budget targets. The commitment to budget target is defined in this study as the determination to try to achieve a budget target and the persistence in pursuing it over time (Locke et al., 1981). The opportunity to get involved and influence the budgeting process increases the sense of belonging, and this increases the desire to become more involved (Shields & Shields, 1998). Therefore, the following assumption was made: *Hypothesis 1: Budget participation is positively associated with commitment to budget targets in French hotel companies.*

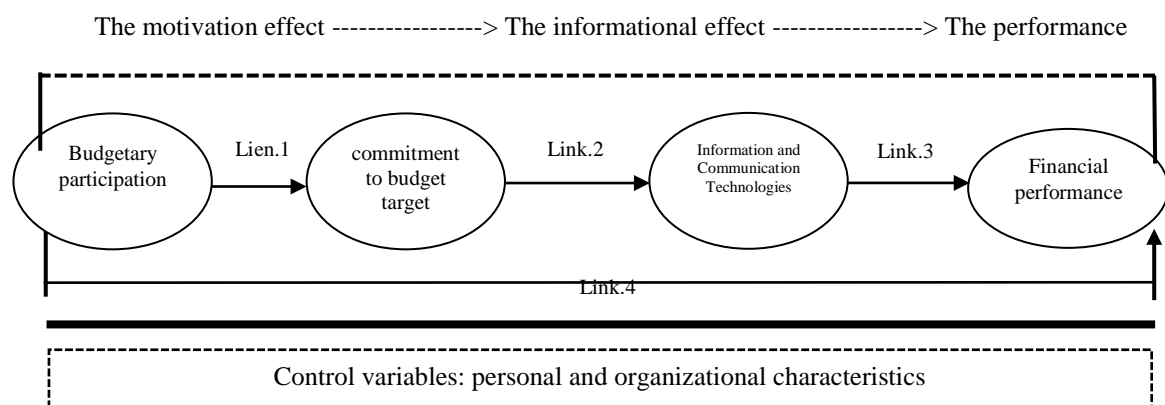
The second hypothesis examines the relationship between commitment to budget target and the use of technology (Link 2, Figure 1). When managers are hired, they deploy the means to share the information necessary to achieve budgetary objectives and this goes as far as the use of information technologies. While Maiga et al. (2014) find that Information and Communication Technologies do not moderate the relationship between budget participation and performance, Winata & Mia (2005) suggest that there is a positive interaction between the three variables. It is necessary to clarify the link. We assume that the use of a tool can only be motivated by its usefulness. Information and communication technologies become necessary only when there is a need to share information, and this can only result from a commitment to achieve budget targets. Thus, we hypothesized that: *Hypothesis 2: commitment to budget targets is positively associated with the use of information and communication technologies.*

The third hypothesis examines the relationship between the use of information and communication technologies and financial performance (Link 3, Figure 1). We assume that tools are used to make the sharing

of financial information fluid, and this makes it possible to anticipate the best decisions. As many studies have shown that the use of information technology and communication is one of the key variables for the success of organizations (e.g. Dehgani & Navimipour, 2019; Kagaari et al., 2010). Campbell & Gingrich (1986) and Kren (1992) suggested that sharing relevant information is positively associated with performance. The sharing of relevant information cannot be done without sophisticated tools, hence the use of information and communication technologies. Thus, the following hypothesis is tested: *Hypothesis 3: The use of information technologies for communication is positively associated with financial performance in French hotel companies.*

From all of the above, we believe that there is a cognitive mechanism (Bandura, 1988) developed by budget participation thus producing a commitment to the achievement of budgetary objectives. This triggers an agential process (Jensen & Meckling, 1976) encouraging the use of information and communication technologies to transmit relevant information. We also expect that: *Hypothesis 4: commitment to budget targets and information technologies are mediators of the link between budget participation and financial performance.*

The fifth hypothesis examines the relationship between budget participation and financial performance (link 4, Figure 1). Participation in the budget allows managers to feel taken into account in the decision-making process. It represents a budget approach that focuses on efforts to motivate employees to achieve organizational goals. Research has found that budget participation has a positive and significant effect on performance (Brownell, 1981; Dunk, 1993). While financial performance is a dimension of performance, it is also possible that budget participation is positively associated with financial performance. Thus, we test the following hypothesis: *Hypothesis 5: Budget participation is positively associated with the financial performance of French hotel companies. Figure 1 summarizes the structural model tested in this study.*



**Figure 1.** Structural model evaluated

### Empirical study

To test these five hypotheses, our method measured the associated variables on a sample of hotel managers in France. The results of these tests suggest a double mediation. This article focuses on exploring and understanding the elements that influence the decisions made by managers. The reasoning is based on a hypothetico-deductive methodology, formulating epistemic hypotheses. The epistemological framework is *critical realist* in nature, which means that it is *critically analyzing the structures and relationships that influence managers' behaviors. The deep reality escapes direct observation. The scientific explanation consists in conceptualizing the functioning of the generating mechanisms that are responsible for the observed events* (Avenier & Thomas, 2012).

### Design and samples

This research uses a cross-sectional design with a three-stage process: From the outset, a literature review finds the structural model evaluated. Then, following Brislin (1970), we did a parallel reverse translation with bilingual experts from an American language center and the discrepancies were corrected by a bilingual finance professional residing in the United States. Then following De Vaus (2001), we pretested our questionnaire three times with doctoral students, professors, and hotel professionals to clarify the

operationalization of the concepts and assess the rate of return. This return rate was 0.24% from the addresses available on the hotel sites and in the KOMPASS database. Finally, although not surprising, this low rate prompted us to administer the questionnaire via Schlesinger Group in October 2022, which counted only 2,789 hotel managers in France. The simple random sample used for this survey included 113 respondents, with an overall response rate of 4.05%. The age of respondents was as follows: 5 were between 20 and 25 years of age, 23 were between 26 and 35 years of age, 65 were between 36 and 45 years of age, and 20 were over 45 years of age. For their level of study, 3 had a level of study other than bachelor's or doctorate, 51 had a bachelor's degree, 54 had a master's degree, and 5 held a doctorate. In terms of seniority in the company, 25 respondents had worked from 1 to 5 years, 62 had 6 to 10 years' experience, 20 had 11 to 15 years' seniority, and 6 had 16 years or more of experience. In terms of organizational characteristics, the number of employees in respondents' enterprises varied, with 8 working in enterprises with 0 to 9 employees, 52 in enterprises with 10 to 249 employees, 49 in enterprises with 250 to 4999 employees, and 4 in enterprises with 5000 or more employees. The hotel form was: 26 respondents were affiliated with an integrated hotel chain, 28 worked in franchised hotels, 15 were in voluntary hotel chains, and 44 were independent. The star rating of hotels where respondents worked was as follows: 9 worked in one-star hotels, 9 in two-star hotels, 39 in three-star hotels, 42 in four-star hotels, and 14 in five-star hotels.

### Measures of variables

Financial performance mobilizes profitability indicators adapted by Banker *et al.* (2000); Brulhart & Moncef (2010); Dittman *et al.* (2009). Response scales range from 1 *extremely below average* to 7 *extremely above average* based on the following items: 1-Return on assets (ROA) 2-Return on investments (ROI) 3-return on equity (ROE) 4-Return on Sales (ROS) 5-Improvement in working capital requirement 6-Average profit 7-Sales growth 8- Improving cash flow 9-Revenue per room available 10-Occupancy rate.

Budget participation is measured using the instrument of Milani (1975), often used in the literature (e.g., Macinati *et al.* (2017)). This scale invites hotel managers to indicate their influence on budget preparation and execution with response options ranging from 1 *strongly disagree* to 7 *strongly agree*. The different items were: 1- To what extent do you get involved when your budget is set? 2- To What extent does your superior provide reasoning when your budget is revised? 3- How often do you state your request, opinion and or suggestions about the budget to your superior without being asked? 4- How much influence do you feel you have on the final budget? 5 How do you view your contribution to the budget? How often does your superior seek your request, opinions and suggestions? When the budget is being set?

Information and Communication Technologies represents all the material, service and technical means in the process of transmitting and analyzing information. For this variable, we use the instrument adapted by Andersen (2001) and mobilized by Winata & Mia (2005) with a seven-point Likert scale based on two ends from 1 *low Information and Communication Technologies use* to 7 *high Information and Communication Technologies use*. The items were: 1- To what extent do you use e-mail to communicate or exchange work-related information with others within your firm? 2- To what extent do you use computer network to access work-related information and data from within your firm? 3- To what extent do you use Internet (external networks) to communicate with suppliers, customers and other relevant entities that are external to your firm? 4- To what extent do you use Internet to communicate or exchange information with parties (creditors, investors, gov't agencies) external to your firm? To what extent do you use video conferencing for your work-related purposes.

Commitment to budget target was measured using three questions originally developed by Locke (1968) and adapted by Jermias & Yigit (2013). Respondents were asked to indicate their level of commitment to the agreed objectives. The answer options range from 1 *not at all* to 7 *a lot* on the three items: 1- Commitment to a goal means acceptance of it as your own personal goal and your determination to attain it. How committed are you to attaining your responsibility area's budget? 2- How important is it to you to at least attain your responsibility area's budget? 3- To what extent are you striving to attain your responsibility area's budget?

We also checked for personal characteristics (gender, age, level of education, experience, seniority, country of origin, cultural proximity) and organizational characteristics (number of stars, hotel form, number of employees, country of establishment).

### Statistical processing

To test the hypotheses, we used the partial least squares approach. This approach is chosen because the auxiliary hypothesis of multi-normality (Table 1) was not corroborated. The SmartPLS software was used

to evaluate the measurement model and the estimation of the structural model. Table 2 with correlation coefficients confirms the plausibility of our assumptions.

**Table 1.** Descriptive statistics – test of normality

	Mean	Standard deviation	Excess Kurtosis	Skewness	Gramér-von Mises test statistic
Commitment to budget target	5.54	0.96	-0.379	-0.237	0.925***
Budgetary participation	5.473	0.899	-0.479	-0.464	0.141**
Financial performance	5.277	0.969	-0.606	-0.606	0.431***
Information and Communication Technologies	5.544	0.922	2.114	-1.056	0.298***

Note: \*p<0.05; \*\*p<0.01; \*\*\*p<0.001 for a bilateral significance test.

**Table 2.** Descriptive statistics – correlation matrices

	Commitment to budget target	Budgetary participation	Financial performance	Information and Communication Technologies
Commitment to budget target	1			
Budgetary participation	0.612***	1		
Financial performance	0.608***	0.622***	1	
Information and Communication Technologies	0.669***	0.604***	0.649***	1

Note: \*p<0.05; \*\*p<0.01; \*\*\*p<0.001 for a bilateral significance test. We corrected these p-values with the procedure of Benjamini & Yekutieli (2001) to decrease the rate of false positive results.

### 3. Results And Discussions

In this point, we will discuss our measurement model and structural model as well as hypothesis testing. The reliability, convergent and discriminant validities of the scales were assessed (Table 3). First, a reliability indicator between 0.7 and 0.90 is satisfactory (Hair et al., 2021). The reliability is therefore satisfactory according to the criteria of alpha,  $\rho_A$  or  $\rho_C$ . Then, the Average Variance Extracted (AVE) indicates good convergent validity, because the construct explains more than half of the variance of these items (AVE > 50%). For each item, this validity is assessed by Loading. We removed factor-weighted items below 0.4, items are removed below 0.7 to achieve good convergent validity, provided the nomological validity of the scale is not sacrificed. For example, items 3 and 6 of budget participation, items 6 and 7 of financial performance and items 2 and 4 of information and communication technologies have been removed. Finally, to assess discriminant validity, we preferred to use HTMT correlation ratios, and their 95% confidence intervals constructed from 10,000 resampling (Table 4). These ratios are all less than 0.85 and significantly less than 0.85 after correction for false positives, reflecting good discriminant validity. The first step of the PLS approach therefore made it possible to evaluate the reliability and validity of the scales used to clarify the links between budget participation and the financial performance of hotel companies. The second step estimates the structure model and tests hypotheses.

**Table 3.** Evaluation of the France measurement model (n=113)

Variables	Items	Loading	Alpha de Cronbach	rho_o	rho_c	AVE
Budgetary participation	Items 1	0.821	0.811	0.818	0.875	0.637
	Items 2	0.770				
	Items 4	0.817				
	Items 5	0.782				
	Items 1	0.797				
Financial performance	Items 2	0.795	0.900	0.904	0.919	0.588
	Items 3	0.753				
	Items 4	0.741				
	Items 5	0.712				
	Items 8	0.764				
	Items 9	0.790				
Information and communication technologies	Items 10	0.780	0.740	0.760	0.852	0.659
	Items 1	0.874				
	Items 3	0.804				
	Items 5	0.752				

Note: for each variable we have the factor weights of each item used (loading), the Average Variance Extracted (AVE) and three reliability indicators: Cronbach's alpha,  $\rho_C$  and  $\rho_A$ . These statistics are not required for single-item budget targets.

**Table 4.** HTMT correlation ratios for estimating discriminant validity

	Commitment to budget target	Budgetary participation	Financial performance	Information and Communication Technologies
Commitment to budget target	1			
Budgetary participation	0.685	1		
Financial performance	0.640	0.730	1	
Information and communication technologies	0.775	0.786	0.795	1

### Structural model and hypothesis testing

A structural model was built in several stages to study the links between budget participation and the performance of hotel companies according to Hair *et al.* (2021). The collinearity (with a maximum of 1.611) between the variables was checked, confirming the absence of problems. Structural coefficients with 10,000 resamples were estimated and tested for statistical significance, with an assessment of the predictive quality of the model. Although predictive power is low for a small number of indicators, the model has good properties for analyzing these relationships. Figure 2 summarizes the results obtained.

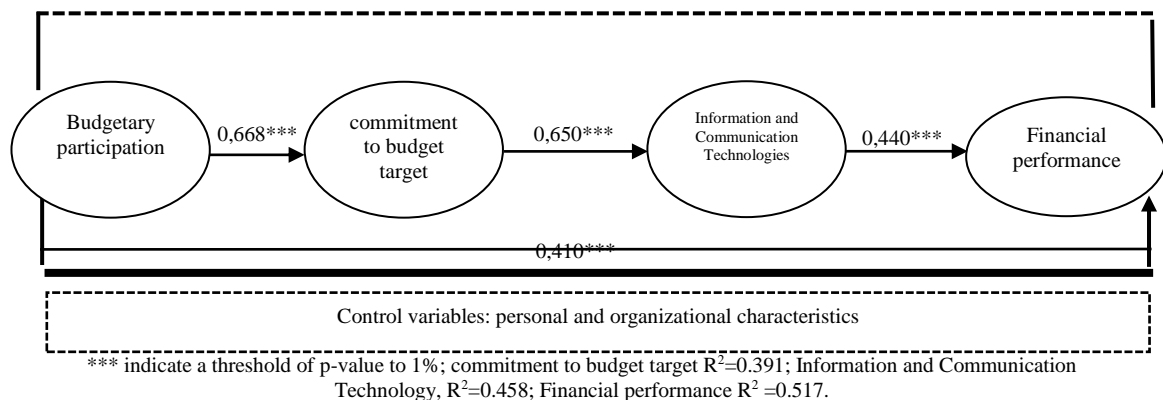
**Figure 2.** Estimated structural model

Figure 2 reveals that our hypotheses are validated, and Table 5 gives a presentation of the different assumptions with the values  $\beta$ , t-statistics and f-square.

**Table 5.** Hypothesis test

Hypothesis	Links	$\beta$	T statistics	f-square	Observation
Hypothesis 1	Budgetary participation-> commitment to budget target	0.668	9.140	0.642	<i>corroborated</i>
Hypothesis 2	commitment to budget target -> Information and Communication Technologies	0.650	9.314	0.844	<i>corroborated</i>
Hypothesis 3	Information and Communication Technologies-> Financial performance	0.440	4.168	0.226	<i>corroborated</i>
Hypothesis 4	Budgetary participation-> commitment to budget target -> Information and Communication Technologies-> Financial performance	0.191	3.665	0.122	<i>corroborated</i>
Hypothesis 5	Budgetary participation-> Financial performance	0.410	3.748	0.186	<i>corroborated</i>

## 4. Conclusion

This study examines the relationship between budget participation, commitment to budget targets and Information and Communication Technologies in the context of French hotel companies. The results show a positive association between budget participation and commitment to budget target. In addition, commitment to budget target is positively associated with the use of Information and Communication Technologies. Ultimately, budget participation is positively linked to the financial performance of French hotel companies, with commitment and Information and Communication Technologies acting as mediators. This study offers managerial suggestions to have a good financial performance, also fills a gap by expanding research beyond the manufacturing sector and taking into account the post-COVID-19 context. Also, the use of the method of structural equations to clarify the link that exists makes it possible to *better understand the decomposition of*

*the mechanisms of influence between the variables studied* (El Akremi, 2005). This approach overcomes the common limitations of data analysis by addressing the problems of low statistical power, non-normality of variable distributions, omission of measurement errors, collinearity, nonlinear relationships, while offering opportunities to improve results through resampling.

This study makes several contributions. First, when managers actively participate in the budgeting process, they are more likely to commit to the set financial goals. Thus, the adoption and effective use of ICT can enhance commitment to budgetary objectives in the context of French hospitality businesses. Increased participation in the budgeting process is associated with better financial performance. Commitment to budgetary objectives and the use of ICT act as mediators in the relationship between budget participation and financial performance. This suggests that these two elements play a key role in translating budget participation into positive financial results. This study is a replication of Chong & Chong's (2002) work in the French context. Second, this research provides managerial contributions to enhance the financial performance of companies based on the study's findings. These recommendations can be valuable for managers and decision-makers in the French hospitality sector. By addressing the specific context of French hospitality businesses, this research expands the scope of the study beyond the manufacturing sector, thus contributing to the diversification of study areas. Finally, considering the post-covid-19 context, the study acknowledges the importance of taking into account the changing business environment, providing current and relevant perspectives. In summary, this study offers motivational insights aimed at achieving financial performance in the hotel industry, this time focusing on the hotel sector in France.

Despite the contributions, this research has gaps common to most management science research. First, a simple random sample does not allow for low variance estimates because of associated sampling errors. Stratified or even balanced samples should be mobilized in the future to obtain more representative conclusions (Deville & Tillé, 2004). The sample of 113 is not sufficient to have a statistical power of 80% to detect small effect sizes (Kock & Hadaya, 2018). The sample was selected from the hospitality industries. Therefore, generalizing the results to other industries and sectors should be done with caution. Further research involving the public sector would be useful. To increase the relevance of the results, the analysis of numerical financial data such as turnover, financial ratios and results of each company, in addition to the self-assessment, could have enriched this study. Future research in this direction would therefore prove beneficial. This study is limited because it focuses only on the relationship between budget participation and financial performance, neglecting other important factors such as stress, roles, environment, and financial incentive that may be the subject of future research.

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