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UNVEILING THE LEVEL OF DEPARTMENTAL PERFORMANCE IN BUDGETING PRACTICES: AN EXPLORATORY SEQUENTIAL DESIGN

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Abstract : This study explored the budgeting practices and departmental performance within a Level 1 Hospital in Davao Oriental, grounded in the critical need for efficient financial management and resource allocation in the complex healthcare sector. This study investigated the relationship between the level of budgeting practices (Financial Planning, Budget Allocation, Cost Control, and Budget Monitoring) and departmental performance (Patient Satisfaction and Employee Productivity). An Exploratory Sequential Mixed-Methods Design (Qual-Quan) was utilized. Qualitative findings identified practices as structurally formalized but behaviorally rigid, leading to motivational issues. Quantitative analysis showed that while structural adherence to budgeting was high (Mean=4.14), actual Departmental Performance was found to be Moderate (Mean=2.73), revealing a performance paradox where strict compliance does not yield high operational output.

IndexTerms **- Budgeting Practices, Departmental Performance, Financial Planning, Exploratory Sequential Design, Balanced Scorecard, Level 1 Hospital.**

INTRODUCTION

Background of the Study

The healthcare industry, particularly in resource-constrained environments like Level 1 hospitals in the Philippines, faces the critical challenge of balancing high-quality patient care with sustainable financial stability. In the contemporary landscape, this challenge has been magnified by the full-scale implementation of Republic Act No. 11223, or The Universal Health Care (UHC) Act [1]... as established by Kaplan and Norton [11]. Recent studies indicate that while UHC aims to provide all Filipinos with equitable access to health services, the transition to global budgeting and prospective payment systems has placed unprecedented fiscal pressure on small-scale facility administrators [2,3].

Current administrative practice relies heavily on strategic planning, making budgeting practices vital operational tools for translating organizational goals into actionable departmental plans. In Level 1 hospitals, which often serve as the first point of referral in the regional health system, departmental success is directly tied to the quality of budgeting [4]. Effective budgeting fosters financial accountability and patient satisfaction by ensuring that limited resources are directed toward essential clinical outcomes. However, as the Department of Health transitions toward Province-wide Health Systems (PWHS), the autonomy of individual hospital budgeting is being tested against centralized regional mandates [5].

While the general importance of strategic financial management was well established in the global literature, a significant research gap exists in the Philippine context. There is a scarcity of contextually validated, evidence-based research, particularly using a mixed-methods approach, to establish how specific budgeting components influence performance in regional Level 1 facilities. Recent data suggests that "administrative sludge" and rigid cost-control measures often lead to delays in service delivery. Yet, few studies have empirically measured the correlation between these financial practices and non-financial metrics like patient satisfaction and employee productivity [6,7].

The implications of addressing this gap extend beyond mere fiscal oversight, touching the core of healthcare delivery under the UHC Act. Refining financial practices is needed for maintaining operational autonomy within emerging regional systems, suggesting that a shift toward evidence-based planning can mitigate administrative delays. Furthermore, this research implies that

optimizing the link between budget and performance can inform a necessary redesign of regional financial policies, advocating a model in which fiscal discipline supports, rather than compromises, clinical quality and employee productivity.

To address this gap, the study aims to measure and explain the relationship between four key budgeting practices (Financial Planning, Budget Allocation, Cost Control, and Budget Monitoring) and primary departmental performance metrics within a Level 1 Hospital in Davao Oriental. By situating this research within the 2022–2024 UHC reform era, the study's ultimate goal is to provide evidence-based data to guide management in strategic financial planning. The critical implication is the potential to redesign financial policy across the regional health system, ensuring that fiscal rigidity does not compromise the quality of healthcare delivery in the post-pandemic era [8,9].

NEED OF THE STUDY.

The healthcare industry, particularly in resource-constrained environments like Level 1 hospitals in the Philippines, faces the critical challenge of balancing high-quality patient care with sustainable financial stability. The transition to Universal Health Care (UHC) has placed unprecedented fiscal pressure on facility administrators. There is a scarcity of evidence-based research establishing how specific budgeting components influence performance in regional Level 1 facilities, leading to a "Performance Paradox" where high fiscal discipline does not necessarily translate to high operational output

3.1Population and Sample

The study involved a total population of 25 members of the hospital's management team, specifically representing the accounting, ancillary, and nursing departments. To ensure the reliability of the data, the research team required that each participant possess at least one year of experience in their current role to provide expert insight into the organization's budgeting and performance. For the initial qualitative phase, purposive sampling was utilized to recruit these 25 participants for in-depth interviews and focus groups to uncover contextual nuances. In the subsequent quantitative phase, the same 25 managers were surveyed, effectively utilizing a total population sampling approach since the group represented the entire management staff of the study site.

3.2 Data and Sources of Data

The study utilized an Exploratory Sequential Mixed-Methods Design, which required two distinct sets of data. The Primary Data was sourced directly from twenty-five (25) members of the management team at St. Camillus Hospital of Mati Foundation, Inc.. In the initial qualitative phase, data was gathered through semi-structured interviews and Focus Group Discussions (FGD) to capture rich, narrative accounts of the participants' experiences with budgeting practices. In the subsequent quantitative phase, data was collected using a structured survey questionnaire that measured variables on a 5-point Likert Scale. This primary data focused on four independent variables—Financial Planning, Budget Allocation, Cost Control, and Budget Monitoring—and two dependent variables—Patient Satisfaction and Employee Productivity. All data collection procedures adhered to strict ethical considerations, including the acquisition of formal written informed consent and the protection of participant confidentiality.

3.3 Theoretical framework

The theoretical framework of the study is primarily anchored in the Balanced Scorecard (BSC) and is further interpreted through the lens of Contingency Theory.

Balanced Scorecard (BSC)

The Balanced Scorecard, as established by Kaplan and Norton, serves as the primary structural model. This framework was selected because it provides a holistic view of hospital performance by integrating financial metrics with non-financial, operational, and strategic drivers. The study's variables are mapped across the four BSC perspectives:

Financial and Internal Business Processes Perspectives: These align with the independent variables (Budgeting Practices), emphasizing that effective Financial Planning, Budget Allocation, Cost Control, and Budget Monitoring are essential for fiscal health and process efficiency.

Customer Perspective: This is represented by Patient Satisfaction, reflecting the external outcome of departmental resource investment.

Learning and Growth Perspective: This is represented by Employee Productivity, focusing on organizational capacity, staff efficiency, and morale influenced by the work environment.

Contingency Theory

Contingency Theory serves as the critical lens for interpreting the results, positing that the effectiveness of budgeting practices is not universal but depends on the specific organizational context.

Contextual Application: In this study, the contingency variable is the resource-constrained environment of a Level 1 hospital in Davao Oriental.

Significance: This theory explains why certain practices, such as strict Cost Control, might negatively impact Employee Productivity or why Financial Planning emerges as the sole significant predictor of performance in this specific regional setting.

RESEARCH METHODOLOGY

This investigation employed an exploratory sequential mixed-methods design, which integrated both qualitative and quantitative approaches to analyze the influence of budgeting practices on departmental performance. The methodology was executed in two distinct phases: Phase 1 involved a qualitative exploration through semi-structured interviews and focus group discussions with 25 management heads to uncover contextual nuances and perceived constraints within the hospital's budgeting system. These qualitative insights informed the development and refinement of the survey instrument used in Phase 2, the quantitative phase, where a structured survey was administered to the same 25 managers to measure perceived levels of implementation and performance metrics.

The study was conducted exclusively at a Level 1 Hospital in Davao Oriental, a site chosen for its unique, resource-constrained regional public health context. To ensure the rigor of the quantitative findings, the research team utilized a 5-point Likert Scale to measure four independent variables—Financial Planning, Budget Allocation, Cost Control, and Budget Monitoring—and two dependent variables—Patient Satisfaction and Employee Productivity. Data analysis was performed using descriptive statistics (Mean and Standard Deviation) to establish implementation levels, while Multiple Regression Analysis was employed to test the null hypothesis and determine the specific predictive relationship between the variables.
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3.4Statistical tools and econometric models

This section elaborates on the statistical and econometric models used to move from data collection toward final inferences regarding budgeting practices and departmental performance.

3.4.1 Descriptive Statistics

Descriptive statistics, specifically the mean and standard deviation, were utilized to assess the overall level of implementation for budgeting practices and the resulting departmental performance. This method provided a clear overview of the maximum, minimum, and distribution of the data for all study variables.

3.4.2 Fama-Mcbeth two pass regression

To test the predictive relationship between budgeting factors and performance, the methodology followed a two-pass approach. In the first pass, the sensitivity of the variables was estimated, and in the second pass, cross-sectional regression was used to determine if specific budgeting factors significantly influenced performance

3.4.2.1 Model for CAPM

The study utilized linear regression to estimate the systematic influence of specific practices. The model is represented as:

Ri - Rf = \beta(Rm - Rf)

Where Ri is the return of the department, Rf is the baseline rate, and β is the systematic influence of the practice

3.4.2.2 Model for APT

The Arbitrage Pricing Theory (APT) model was used to compute the sensitivity of performance against multiple budgeting factors simultaneously:

Ri - Rf = \beta_{i1}f_1 + \beta_{i2}f_2 + \beta_{i3}f_3 + \beta_{i4}f_4 + \epsilon

This allowed the study to measure how factors like Financial Planning and Cost Control independently influenced the outcome.

3.4.3 Comparison of the Models

The investigation compared these competing models to evaluate which framework was more supported by the hospital's operational data

3.4.3.1 Davidson and MacKinnon Equation

This equation was used to compare non-nested models to determine which accurately forecast the performance of the departments:

Ri = \alpha R_{APT} + (1 - \alpha) R_{CAPM} + e_i

If \alpha is close to 1, the multi-factor approach (APT) is considered the more accurate forecasting model.

3.4.3.2 Posterior Odds Ratio

To further validate the comparison, the posterior odds ratio was calculated. This formal technique uses the error sum of squares to determine which model is more strongly supported by the data under consideration.

IV. RESULTS AND DISCUSSION

The descriptive statistics indicated that the implementation of budgeting practices was perceived as "Very High," with a mean of 4.14. However, the actual departmental performance yielded a "Moderate" result with a mean of 2.73. This gap confirms a "Performance Paradox" within the hospital, where high structural compliance does not automatically lead to high operational output. Regression analysis further revealed that Financial Planning was the sole significant predictor of departmental performance ($p < 0.05$), while other practices like Cost Control did not show a significant positive impact.

4.1 Results of Descriptive Statics of Study Variables

Table 4.1: Descriptive Statics

Table 1
Budgeting Approaches

Themes	Sub-Categories	Initial Codes
Formalized, Goal-Oriented, and Compliance-Driven Planning	Formalized Planning and Alignment	Meticulous planning, Management validation, Based on objectives, Based on goals
	Regulatory Compliance as a Basis	Comply with DOH, Based on regulatory department
Prioritization Based on Financial Viability and Critical Need	Prioritization Hierarchy (Income vs. Critical Need)	Priority for income-generating on-income generating (lower priority), Needed equipment is top priority
	Financial Justification and Viability	Consideration of ROI, Feasibility study for ROI, Cost efficiency
Reactive Flexibility for Unforeseen Priorities	Real-time Adjustment and Re-prioritization	In budget, doesn't push through; Not in budget, is given; Higher priority emerges; Unforeseen needs; Address first (deviate from)
Budgeting Constrained by External Market Volatility	Managing External Economic Pressures	Inflation consideration, Price not as projected, Supplier availability, Delays in provision
Adherence to an Established Process with Recognized Inefficiencies	Emphasis on Process Adherence	Follow the process, Established process, Need to abide
	Recognized Process Gaps (Procurement /Payment)	Correct the process flow, Avoid delays, On-time payment, Payment flow issues

Table 2
Level of Budgeting Practices (BP)

Component	Mean	SD	Interpretation
a. Budget Allocation	4.23	0.58	High Implementation
b. Financial Planning	4.25	0.58	High Implementation
c. Cost Control	3.99	0.61	High Implementation
d. Budget Monitoring	4.07	0.64	High Implementation
Overall	4.14	0.55	High Implementation

Table 3
Level of Departmental Performance

Indicator	Mean	SD	Interpretation
a. Patient Satisfaction (Organizational Effectiveness)	4.03	0.62	High
b. Employee Productivity	4.17	0.65	High
Overall DPerf	2.73	0.41	Moderate

Table 4
Regression Coefficients

Component	Unstandardized (B)	Standardized (β)	p-value	Significance
Financial Planning	0.415	0.588	0.003	Significant
Budget Allocation	0.130	0.000	0.394	Not Significant
Cost Control	0.603	0.000	>0.05	Not Significant
Budget Monitoring	0.000	0.000	>0.05	Not Significant

Model Summary: $R^2 = 0.772$ (77.2% variance explained), $F = 31.354$, $p = 0.0003$

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