

Analysis of interrelationship between usefulness of management accounting systems, interactive budget use and job performance

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CHRONICLE

ABSTRACT

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This study investigates the importance of management accounting systems (MAS) and interactive budget use at middle to lower level employees in the public service administration. The study tries to understand the effect of interactive budget use on the interrelationship between MAS information and job performance. The study sends a questionnaire to each potential participant of 40 public administration offices located at West Java Province of Indonesia. Out of 120 distributed, the study obtains 78 usable data and analyses using Path-Analysis. The study finds that MAS information improved interactive budget use. Both variables of MAS information and interactive budget use significantly boost the job performance. However, interactive budget use did not moderate in the relationship between MAS information and job performance. The study implies that director/chairman and managers can open communication channels to subordinate to increase MAS information which leads to the improvement interactive budget use in order to generate excellent performance. This study confirms that MAS information should increase the implementation of interactive budget use to leverage the administration service and civil services in gaining competitive advantage. The study investigates the importance of MAS information and interactive budget use at middle to lower level employees in public service administration office.

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1. Introduction

Nowadays, many researchers in the area of management accounting have paid less attention in the public sector (Lau & Tan, 1998; Brownell & Mechant, 1990; Brownell & Dunk, 1991; Nouri & Parker 1998; Chong & Chong, 2002; Chia, 1995; Chong & Eggleton, 2003). Abernethy and Brownell (1999) investigated how management accounting control systems play an essential role in shaping organizational change. They stated that interactive budget use could be a moderating variable in the relationship between strategic change and hospital performance. Bisbe and Otley (2004) performed an investigation on the relationship between innovation and MAS but their results did not support that an interactive use of MCS could lead to innovation within the organization. In this research, we investigate whether or not there is a positive relationship between the levels of quality MAS information, interactive budget use and job performance.

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2. Literature Review and Hypothesis Development

Chenhall and Morris (1986) formalized the four information characteristics of MAS. The summary of the dimension information characteristics; namely scope (narrow to broad), timeliness (slow/standard to fast/customized to requests), aggregation (from summarized to very detailed), and integration (information for the department only to information from other department). There have been many studies adopted four dimensions of information characteristics in the manuscript, actually in the privat sector, for example manufacturing company. Soobaroyen and Poorundersing (2008) suggested MAS information in manufacturing companies to have a positive effect on firm performance. The same findings have been reported in other studies, for example: Fisher (1996), Chong (2004), Chia (1995), Mia and Chenhall (1994), and Gul and Chia (1994). MAS information had a positive effect on interactive budget use (Chenhall & Langfield-Smith, 1998; Chenhall, 2003; Haldma & Laats, 2002; Naranjo-Gil & Hartmann, 2006). Interactive budget use has positive impact on job performance (Abernethy & Brownell, 1999; Nouri & Parker, 1998; Chong & Chong, 2002). Many studies have suggested interactive budget use or budget as a style of performance evaluation and its impact on job performance. Budget style of performace evaluation influenced on the job performace (Lau & Tan, 1998; Brownell & Mechant, 1990; Brownell & Dunk, 1991). However, less attension has been devoted on management accounting to examine whether or not MAS information has any positive impact on interactive budget use and indirect effect to increase job performance. The proposed study tries to examine such relationship and Fig. 1 demonstrates the summary of the proposed study.

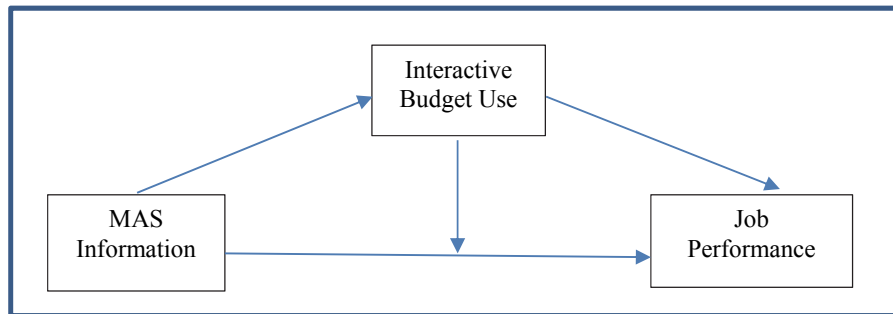


Fig. 1. Conceptual of Research Framework

According to Fig. 1, we examine the effect of MAS information on Interactive Budget Use and the effect of Interactive Budget Use on Job Performance. We also examine the effect of MAS on Job performance where Interactive Budget Use plays a mediator role on this relationship.

H: There is a positive relationship between the level of quality MAS information, interactive budget use and job performance:

1. MAS information has a direct on job performance.
2. MAS information has a direct on interactive budget use.
3. Interactive budget use has a direct effect on job performance.
4. Interactive budget use ahs a indipendence variable in the performance evaluation perspective view.

3. Methodology

3.1 Questionnaire distribution and survey administration

Each potential participant of 40 public administration offices west Java in Indonesia was sent a questionnaire together with a covering latter and a stamped sefl-addressed envelope, with a request to respond within two weeks. If they did not respond, we contacted them to get the necessary information.

From 120 distributed, we obtained 78 usable data points where we analysed them using Path-Analysis. Each office, were distributed three questionnaires in operation, finance and planning section/departements.

3.2 Instruments measurement

Management Accounting Systems. The instrument measurement for the MAS information was based on Chenhal and Morris (1986), because it was used, extensively. We used three group dimensions relating information characteristics of scope (5 items information), timeliness (4 items information), and integration dimenstions (3 items information). The dimensions of integration were not relevant to government office.

Interactive Budget Use. The instrument measurement was fully adopted from the Abernethy and Brownell (1999). The respondents were asked the extent to which with 3 items in order of the five Likert-scale very disagreed and very agreed.

Job Performance. Job performance instrument for measurement was replicated by the Mahoney, et al. (1963, 1965).

4. Results and Findings

4.1 Results

78 usable data points were analysed using Path-Analysis and the results are shown in Table 1 as follows,

Table 1

Descriptive statistics, reliability, validity, and correlation matrix^a (n=78)

| Variables | Min | Max | Mean (sd) | MAS information | Correlations Interactive budget use | Job performance |
|------------------------|-------|-------|--------------|-----------------|-------------------------------------|-----------------|
| MAS information | 30.00 | 60.00 | 42.23 (5.87) | - | | |
| Interactice budget use | 12.00 | 20.00 | 16.00 (1.76) | 0.489** | - | |
| Job Performance | 24.00 | 45.00 | 35.38 (4.27) | 0.609** | 0.548** | - |

a) Pearson correlation (two-tailed test) were computed. *correlation is significant at the 0.05 level; and ** is significant at the 0.001 level.

Kaiser-Meyer-Olkin measure of sampling adequacy yields 0.867, 0.653, 0.881 for MAS information and Interactive budget and Job performance, respectively and Cronbach alpha for these three variables were 0.911, 0.890 and 0.646, respectively which confirm the reliability of the test (Nunnally, 1978; Kaiser & Rice, 1974). In our survey, out of 78 respondents, there were 47 male and 31 female. Among the respondents undergraduat level was 48 and postgraduat level was 30.

Table 2

The results of the direct and the indirect effects of MAS on job performance

| Independence variable | Unstandardizes coefficients - B | t-test |
|--|---------------------------------|---------------|
| Constants | 9.385 | 6.875 (0.000) |
| MAS information | 0.146 | 4.886 (0.000) |
| Dependence variable: Interactive budget use, in order R-square is 0.238 and F-test is 23.870 (0.000) | | |
| Constants | 14.074 | 3.749 (0.000) |
| Interactive budget use | 1.332 | 5.710 (0.000) |
| Dependence variable: Job performance, in order R-square is 0.300 and F-test is 32.603 (0.000) | | |

According to Table 2, MAS information maintains positive and significant effect on job performance, and interactive budget use has positive effect on job performance. Therefore *h2* and *h3* were supported.

Table 3

The results of the effect of interactive budget use in the relationship between usefulness of management accounting systems and job performance, with three step level.

| Independence variable | R-Square | F-test | Unstandardizes coefficients - B | t-test |
|--------------------------------------|----------|---------|---------------------------------|----------------|
| Constants | 0.370 | 44.704 | 15.368 | 5.091 (0.000) |
| MAS information | | (0.000) | 0.443 | 6.689 (0.000) |
| Constants | 0.453 | 31.023 | 7.862 | 2.179 (0.000) |
| MAS information | | (0.000) | 0.326 | 4.572 (0.000) |
| Interactive budget use | | | 0.800 | 3.360 (0.000) |
| Constants | 0.456 | 20.671 | -6.983 | -0.306 (0.760) |
| MAS information | | (0.000) | 0.652 | 1.303 (0.197) |
| Interactive budget use | | | 1.719 | 1.216 (0.228) |
| Moderating MAS.Budget | | | -0.020 | -0.659 (0.512) |
| Dependence variable: Job Performance | | | | |

According to the results of Table 3, the results of step-wise regression analysis have indicated the level of quality and sophistication of MAS information and interactive budget use had positive effect on job performance (support *h1* and *h3*). Therefore *h4* was supported.

5. Conclusion

In our survey, MAS information have positive effect on job performance. That is consistent on the prior studies. For instance, Soobaroyen and Poorundersing (2008) suggest that MAS information maintained positive and significant effect on firm performance. The same findings were found by Fisher (1996); Chong (2004); Chia (1995); Dahlan (2017); Mia and Chenhall (1994); and Gul and Chia (1994). MAS information also had a positive and significantly effect on interactive budget use and the results are consistent with other studies (e.g. Chenhall & Langfield-Smith, 1998; Chenhall, 2003; Haldma & Laats, 2002; Naranjo-Gil & Hartmann, 2006). Interactive budget use has positive and significant effect on job performance and the findings are in line with the previous studies (Abernethy & Brownell, 1999; Nouri & Parker, 1998; Dahlan et al., 2007; Chong & Chong, 2002). Budget style also influenced on the job performance and this result is confirmed with other findings (e.g. Lau & Tan, 1998, Brownell & Merchant, 1990; Brownell & Dunk, 1991).

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