**Table 3. Multiple regression analysis**

| Variable | Costs per discharge B | std. error | *t*-test |
|---|---|---|---|
| *Independent* | | | |
| Hospital ownership | | | |
| public hospital (Yes/No) | 3009.4 | 1098.8 | 2.739** |
| proprietary hospital (Yes/No) | 1176.0 | 999.8 | 1.176 |
| *Control* | | | |
| Hospital level | | | |
| medical center (Yes/No) | 2543.2 | 1158.4 | 2.196* |
| regional hospital (Yes/No) | 591.2 | 1102.1 | 0.536 |
| Teaching status | | | |
| Yes (Yes/No) | 2175.6 | 1233.5 | 1.764 |
| Discharge status | | | |
| recovery (Yes/No) | -1432.2 | 970.2 | -1.476 |
| Gender | | | |
| female (Yes/No) | 1190.2 | 676.7 | 1.759 |
| Age | 9.6 | 17.5 | 0.547 |
| Length of stay | 2371.8 | 211.1 | 11.237*** |
| Constant | 17904.5 | 1182.3 | 15.144*** |
| N | | 358 | |
| adj $R^2$ | | 0.363 | |
| F | | 23.578*** | |

*$p < 0.05$; **$p < 0.01$; ***$p < 0.001$.

help of these 9 variables (Table 3) and shown statistically significant differences ($p < .001$).

The multiple regression analysis revealed that costs per discharge were significant with one dummy variable of hospital ownership ($p < 0.006$) after adjusting for patient age, gender, LOS, discharge status, hospital level, and teaching status. This suggests that the costs of patients undergoing a thyroidectomy without complications or comorbidities admitted to public hospitals were more likely to be higher than those of patients admitted to private hospitals. Aside from hospital ownership discussed above, the control variables of LOS ($p < .001$) and one dummy variable of hospital level ($p = .029$) also had positively significant relationships with costs. This shows that costs of patients undergoing a thyroidectomy without complications or comorbidities admitted to medical centers were higher than those of patients admitted to district hospitals. The relationship between LOS and costs suggested that the sampled patients had a gradual increase in cost with LOS with an average of NT2,372 higher costs for each day increase in LOS.

## DISSCUSION

The costs of patients undergoing a thyroidectomy without complications or comorbidities discharged from public hospitals being higher than those of patients discharged from private hospitals indicates that for-profit private hospitals are more responsive to cost containment than are their non-profit counterparts.[5] This finding is also consistent with the conclusion of a study by Cowing and Holtman.[10] In addition, Baker et al. indicated that 9 of 11 studies reported differences by ownership in hospital costs which is also coherent with our findings.[2] However, the reports by Friedman and Shortell,[3] and Hultman[11] showed no relationship between hospital ownership and costs of patient care. Contrary to our findings, Grannemann et al. proposed that public hospitals had lower costs than those with a private form of ownership.[12] The mixed results of the