UNIVERSITY OF THE PEOPLE

BUS 4404-01 PRINCIPLES OF FINANCE 2 - AY2024-T3

WRITTEN ASSIGNMENT UNIT 5

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DOLLAR BILL'S, a retail store in New York City, buys its inventory on credit. Upon purchase, it is given 30 days in which to pay its suppliers. It sells all of its merchandise on credit. It extends 60 days of credit to its customers. Its inventory turnover rate is 60 days.

Situation 1

Using the Cash Conversion Model, measure DOLLAR BILL'S financing cycle in both days and money ($US) using the following assumptions:

Sales of $730,000

Gross Margin of 30%

Financing Rate 6.5%

"Cash Conversion Cycle = DIO + DSO – DPO

Where:

DIO stands for Days Inventory Outstanding

DSO stands for Days Sales Outstanding

DPO stands for Days Payable Outstanding" (Team, 2023).

CCC = 60+60-30 = 90 days

Cost of goods sold = Sales minus Gross Margin

730,000 – (730,000 * .3)

730,000 – 219,000

COGS = 511,000

CCC = DIO + DSO - DPO

= (sales * 60/365) + (COGS * 60/365) - (COGS * 30/365)

= (730,000 * .1644) + (511,000 * .1644) - (511,000 * .08219)

= 120,012 + 84,008 - 42,000

CCC = $162,000

Situation 2

Recent management decisions have had the following impact:

DOLLAR BILL has renegotiated its credit line so that it has 35 days to pay its suppliers

It now extends 45 days of credit to its customers,

It has an inventory turnover rate of 45 days.

CCC = DIO + DSO – DPO

= 45+45-35 = 55 days

= (sales * 45/365) + (COGS * 45/365) – (COGS * 35/365)

= 730,000 * .1233 + 511,000 * .1233 – 511,000 * .0958

= 90,000 + 63,000 – 49,000

= $104,000

All other factors remain the same. Has DOLLAR BILL'S financing cycle improved or declined?

Quantify the change in days and in dollars. Please show your work.

To determine if the Dollar Bill's financing cycle has improved or declined, we need to compare the Cash Conversion Cycle (CCC) values from the two solutions provided.

Solution 1:

CCC = 162,000

Solution 2:

CCC = 104,000

Since the CCC value in Solution 2 (104,000) is lower than the CCC value in Solution 1 (162,000), it indicates that Dollar Bill's financing cycle has **improved**.

The change in days can be calculated as:

Change in days = CCC (Solution 1) - CCC (Solution 2)

Change in days = 90 days - 55 days

Change in days = 35 days

To quantify the change in dollars, we need to convert the change in days to a dollar amount. We can do this by using the Cost of Goods Sold (COGS) value from either solution.

Using the COGS value from Solution 1:

COGS = $511,000

Change in dollars = (Change in days / 365) × COGS

Change in dollars = (35 days / 365) × $511,000

Change in dollars = $49,000

Therefore, the Dollar Bill's financing cycle has **improved** by 35 days, which is equivalent to a reduction of $49,000 in financing costs.

References:

Team, C. (2023, December 11). Cash Conversion cycle. Corporate Finance Institute. https://corporatefinanceinstitute.com/resources/accounting/cash-conversion-cycle/