Mini Case 4

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**Credit Policy at Braam Industries**

 In order to formulate which out of the four policies (including the current policy) will be the most optimal for Braam industries, an NPV analysis must be done of all four policies (Kong, et al, 2016).

**Current Policy**

Daily sales of Braam Industries = $\frac{Annual sales}{number of days in a year}$

Daily sales of Braam Industries = $\frac{113000000}{365}$

Daily sales of Braam Industries = $\$309589$

Average daily cost:

Average daily variable costs = $\frac{113000000}{365}\*0.45$

Average daily variable costs = $\$139315$

Administrative costs per day = $\frac{113000000}{365}\*0.0160$

Administrative costs per day = $\$4953$

Average daily defaults = $\frac{113000000}{365}\*0.0210$

Average daily defaults = $\$6501$

Interest rate = $\left(\frac{\left(1\*0.06\right)}{365}\right)^{38}-1$

Interest rate = $0.00609$ => 0.609%

Net Present Value = $139315+(309589-139315- 6501- 953)/0.00609 $

Net Present Value = $\$49611659$

**Option 1**

Daily sales of Braam Industries = $\frac{Annual sales}{number of days in a year}$

Daily sales of Braam Industries = $\frac{129000000}{365}$

Daily sales of Braam Industries = $\$353425$

Average daily cost:

Average daily variable costs = $\frac{129000000}{365}\*0.45$

Average daily variable costs = $\$159041$

Administrative costs per day = $\frac{129000000}{365}\*0.0240$

Administrative costs per day = $\$8482$

Average daily defaults = $\frac{129000000}{365}\*0.0260$

Average daily defaults = $\$9189$

Interest rate = $\left(\frac{\left(1\*0.06\right)}{365}\right)^{41}-1$

Interest rate = $0.00657$ => 0.657%

Net Present Value = $\frac{159041+(353425-159041- 8482- 9189)}{0.00657} $

Net Present Value = $\$51104110$

**Option 2**

Daily sales of Braam Industries = $\frac{Annual sales}{number of days in a year}$

Daily sales of Braam Industries = $\frac{127000000}{365}$

Daily sales of Braam Industries = $\$347945$

Average daily cost:

Average daily variable costs = $\frac{127000000}{365}\*0.45$

Average daily variable costs = $\$156575$

Administrative costs per day = $\frac{127000000}{365}\*0.0190$

Administrative costs per day = $\$6610$

Average daily defaults = $\frac{127000000}{365}\*0.0220$

Average daily defaults = $\$7655$

Interest rate = $\left(\frac{\left(1\*0.06\right)}{365}\right)^{51}-1$

Interest rate = $0.00818$ => 0.818%

Net Present Value = $\frac{156575+(347945-156575- 7655- 6610)}{0.00818}$

Net Present Value = $\$40792176$

**Option 3**

Daily sales of Braam Industries = $\frac{Annual sales}{number of days in a year}$

Daily sales of Braam Industries = $\frac{130000000}{365}$

Daily sales of Braam Industries = $\$356164$

Average daily cost:

Average daily variable costs = $\frac{130000000}{365}\*0.45$

Average daily variable costs = $\$160274$

Administrative costs per day = $\frac{130000000}{365}\*0.0210$

Administrative costs per day = $\$7480$

Average daily defaults = $\frac{130000000}{365}\*0.0250$

Average daily defaults = $\$8904$

Interest rate = $\left(\frac{\left(1\*0.06\right)}{365}\right)^{49}-1$

Interest rate = $0.00785$ => 0.785%

Net Present Value = $\frac{160274+(356164-160274- 7480- 8904)}{0.00785}$

Net Present Value = $\$43284076$

**Conclusion**

 After analyzing all the calculations done above and it can be summarized that the best option would be the option 1 as it has the highest NPV. There is high plausibility in the default rate and administrative cost of option being lower than option 3. There are several reasons for this, primarily, the credit period is extended in both Option 2 and Option 3 but the credit policy is relaxed in Option 3. By relaxing the credit policy in Option 3, the default rate will automatically increase (Morais, et al, 2019). This is because there will companies that are less likely to pay and also have a lower credit rating would be added into the policy. The effect of this would be carried onto the administrative costs which will be higher to manage the increased number of delinquent accounts (Prina, 2015).

References

Kong, J., Zhou, Y., Lai, H., Zhang, F., & Zhou, Z. (2016). Analysis of Credit Sale Risk of Emerging Market Product. *Procedia Computer Science*, *91*, 362-371.

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