Chapter 9 - Strategic Analysis of Operating Income

Case Scenario 16

"A" is a mid-size bank with a loan asset portfolio that primarily comprises of housing loans and commercial loans. Efforts are underway to identify business opportunities that can contribute positively to the bank's bottom line. As a management analyst, you are analyzing the interest income from loan portfolios, the main income portfolio for any bank. You notice interest income from two types of loan portfolios – student education loans and consumer durable loans. These loan portfolios have not been focused upon until date since the loans form a minor portion of the entire loan portfolio, each less than 1% of the total loan portfolio. Consequently, the interest income generated is also minor in terms of the entire interest income of the bank. The primary focus has always been on housing loans and commercial loans, which form a major portion of the loan segment.

Following is some information you have about the interest on the student education loan segment and the interest on consumer durable loan segment:

Interest income earned on student education loan segment and consumer durable loan segment.

(₹ in Lakhs)

Particulars	Year 1	Year 2	Year 3	Year 4	Year 5
Interest earned on Student Education Loans	15	18	21	28	35
Interest earned on Consumer Durable loans	30	28	22	16	12

Other information available to you:

Student Education Loans:

The bank recognizes around 150 educational institutions for the purpose of providing educational loans to students who need financing. These are premier institutes that are well recognized for their academic rigor. Due to the quality of their courses, 100% of the students get job placements immediately after graduation. Due to this the loan default on these loans has been very negligible, if any. Also, the bank has identified around 25 courses, predominantly post graduate courses, for which it has been extending education loans to students.

On the other hand, information from peer group banks shows that on an average each bank recognizes around 450 educational institutions. The number of courses recognized are both graduate and post graduate degrees, almost 100 courses. Not all institute are premier. The recognition of these degrees in the market varies. Therefore, only around 80% of the graduates to whom peer bank group offers financing, find job placements immediately after graduation.

Consumer Durable Loans:

The bank provides unsecured consumer durable loans for limited product purchase such as TVs, Refrigerators, mobile phones etc. It has a list of 15 products for which it provides loans to customers who need financing. The loan disbursement procedure is routed through sales personnel who are present in select branches of stores with whom the bank has tie up for such loans. Loan processing takes few days with due diligence done based on the loan application documents that the customer submits. Again, due to this due diligence, default rates have been negligible.

On the other hand, information from peer banks suggests that that on an average each bank recognizes about 45 products for which they provide customers financing when they want to purchase the consumer durable item. Also, loan processing is done online, with the help of the respective bank's inbuilt loan application system. Loan disbursement is immediate. The consumer durable can be purchased from any store, not just from recognized stores that have a tie up with the respective bank. This enables hassle free shopping experience to many.

Required

Put forward your inputs (recommend) based on the information provided above, to find business opportunities that can help Bank "A" grow its lending portfolio and interest income.

Solution

Student Education loans and Consumer Durable loans have been a very minor part of "A"'s business operations, each being less than 1% of entire loan portfolio. At the same time, these maybe segments that can potentially grow our lending portfolio and increase our interest income earning capacity.

Student Education loans:

It can be seen that interest income from student education loans have increased steadily from ₹15 Lakh in Year 1 to about ₹35 Lakh in Year 5. This shows that the volume in this loan segment has been steadily growing in the recent years. It could be a potential area to explore to expand our loan offering. Currently, "A" recognizes 150 educational institutions for the purpose of providing education loan to students in need of financing but each bank in peer bank group on an average recognizes 450 such institutes for the same purpose. The number of courses "A" recognizes for which a loan is extended is 25 courses, mostly courses that are undertaken to earn a higher qualification like post-graduation degree. However, peers on the other hand each recognizes, a broader variety of 100 courses, both graduate and post-graduate degree for which they are willing to finance students. Therefore, it seems that "A" can expand the range of courses for which it provides student education loans. "A" can also recognize more educational institutions to expand its potential market volume. However, this comes at the risk of default. Currently "A"'s approach to this segment has been conservative, limiting loans only to institutes and courses that enable the student with a very high possibility of finding a job immediately after qualifying. These may be courses that are sought out by potential job recruiters. Hence, students to whom loans were provided by "A", have not defaulted on any of the loan repayments. Its loan default rate in almost negligible. "A"'s peer banks have a much broader market reach, but at the same time, immediately after graduation only 80% of the students to whom loan financing was provided, have been able to find jobs. The job recruiters may not immediately require the some of the courses that some of the institutions offer. This increases the risk of loan default.

It is recommended to study the student education loan market segment more carefully. "A"'s strategy can be then laid out based on our internal benchmark requirements and risk profile.

Consumer Durable Loans:

The consumer durable loan segment has seen a steady decline in interest income from ₹30 Lakh in Year 1 to ₹12 Lakh in Year 5. "A" provides financing to customers to purchase from a list of 15 consumer durable products that it has identified including TVs, refrigerators, mobile phones. These are disbursed through its sales personnel present in the select stores with whom it has tie up for this purpose. Due to due diligence procedures, the loan default rate has been very low.

On the other hand, peer bank group have a much broader range of products, on an average of 45 products for which financing can be provided. There is no restriction on where the product is being purchased from. This widens the market range. Also, their customers can apply for these loans online. Disbursement of loan in immediate. This provides for hassle free shopping experience.

It is recommended to study "A"'s loan disbursement procedures further in order to increase the loan volume for consumer durables. Currently, it is restricted to purchases for specific products from select stores. Loan is being disbursed only after due diligence procedures, which have a time lag of few days. Increasing the range of products for which financing is offered and a dedicated bank system where the customer can apply for these loans may ramp up its volumes. At the same time, the downside risk to be addressed is the risk of fraud due to immediate loan disbursement or extending loans to customers whose credit worthiness might be lower. This would increase the risk of default.

Conclusion

By expanding customer base "A" has the advantage of tapping these customers for future cross selling of its home loan and commercial loan products. "A"'s current customer base especially from the home loan portfolio can also be researched to identify potential customers who may need either student education loans or consumer durable loans. Hence, the two customer segments may be considered for future expansion purpose. "A" needs to tailor its strategy based on internal benchmarks and risk profile capacity.

Skill Based Q.35 – Manufacturing Cycle Efficiency (RTP)

Glen Electronics manufactures a wide range of electronic heaters and geysers. Glen was a popular name among retailers and customers, but it keeps on losing the market share; the major reason is emerging competitors are offering economical product customers with similar features and quality. The market where-in Glen operating is price sensitive, hence adding more features and establish itself as a premium brand is not the option. The only possible choice left with glen is to reduce prices for that it needs to reduce the cost to maintain the profit margin.

A cost management committee was constituted to study the scenario and recommend the solution to the board of directors. The committee based upon their study suggests a 3-phase solution, out of which phase one is 'stress on enhancing manufacturing cycle efficiency from its current level of 62.50%'. The committee collects the following data with help from the office of the Chief Management Accountant–

- Current batch wait time before the order getting process is 4 days.
- The time spent working on the products (batch processing time) is currently 20 days.
- Total time spent by the products waiting –to be processed, moved, inspected, and delivered (batch queue time) is currently 6 days.
- Currently, the time spent on making sure that the products are not defective (batch inspection time) is double that time spent in transferring products between workstations (batch move time).

The Board of directors based upon the committee's report decided to apply cellular manufacturing to reduce unnecessary move time. Based upon decision tasks are allocated to concerned functional managers.

Managers and workers showed their resistance by stating – "we are not convinced that cellular manufacturing reduces motions on the production floor". Some workers even mentioned they are not aware of what is current batch inspection time and batch move time.

Required

You are deputy to management accountant and was part of the committee, hence board approached you to convince the managers and workers as part for change management.

(i) CALCULATE current batch inspection time and batch move time.

(ii) CALCULATE manufacturing cycle time, and how much is non-value-added time? (in term of days)

(iii) CALCULATE revised manufacturing cycle efficiency if both batch inspection time and batch move time cut down to half of the current level and other elements remain constant.

(iv) What makes cellular manufacturing capable to reduce motions on the production floor and how benefit the workers? EXPLAIN.

Solution

(i) Batch Inspection Time and Batch Move Time

It is given in the question that currently– MCE is 62.50%,

Batch process time is 20 days, and Batch queue time is 6 days.

Let presume batch move time 'x' then batch inspection time will be '2x' because currently double then batch move time.

Hence,

62.50% or 0.6250 = 20 days / 20 days + x + 2x + 6 days

Solving linear equation

⇒ 20 days + x + 2x + 6 days = 20 days/ .6250

⇒20 days + x + 2x + 6 days = 32 days

⇒ 3x + 26 days = 32 days

⇒ 3x = 32 days − 26 days

⇒ 3x = 6 days

⇒ x = 2 days

So, Batch move time (x) is 2 days and Batch inspection time (2x) is 4 days.

(ii) Manufacturing Cycle Time and Non-Value-Added Time (in days)

62.50% or .6250 = 20 days/ Manufacturing cycle time

⇒Manufacturing cycle time = 20 days / 0.6250

⇒Manufacturing cycle time = 32 days

Or,

Manufacturing cycle time includes all form of time a product spends (in manufacturing department).

Hence, Manufacturing cycle time = 20 days + 2 days + 4 days + 6 days = 32 days

Non-Value-Added Time is that component of manufacturing cycle time which does not lead to any value creation directly.

Hence, Non-value-added time = 32 days – 20 days i.e., 12 days

Or

2 days + 4 days + 6 days = 12 days

Note – if the discussion is regarding customer response time then non-value added time also includes wait time before the order getting

(iii**) Revised Manufacturing Cycle Efficiency** if both batch inspection time and batch move time cut down to half of the current level and other elements remains constant. Hence,

Batch process time is 20 days,

Batch queue time is 6 days,

Revised batch move time is 1 day (half of 2) and

Revised batch inspection time is 2 days (half of 4).

⇒ MCE Revised = 20 days/ 20 days + 1 day + 2 days + 6 days

⇒ MCE Revised = 20 days / 29 days

⇒ MCE Revised = .6897 or 68.97%

Improvement is recorded from 62.50% to 68.97%, on account of cut down of batch inspection time and batch move time to half of current level.

(iv) Cellular manufacturing capable to reduce motions on the production floor. Cellular manufacturing is a lean way to enhance productivity by improving the performance in the context of time and motion involved in the production.

Cellular manufacturing is an application of group technology in manufacturing in which all or a portion of a firm's manufacturing system has been converted into manufacturing cells (a cluster of machines or processes located in close proximity and dedicated to the manufacturing of a family of parts). In this manner cellular manufacturing results in the reduction of move time by reducing material handling (through integrated cell) and transit time and using smaller batch sizes (even single unit).

Hence motion (movement) of material (& product) and worker on production is reduced on the production floor. This may also result in reduced queue time because batch size is small even single piece flow in some cases. This is beneficial to the worker as well in two ways, apart from enhancing the productivity for organisation; first, due to less motion, fatigue will also be less to the worker after working in a shift of the same tenure (if he is a piece-rate worker get more wages) and second since he is working on more than one machine and part hence may feel more empowered. So cellular manufacturing leads to win-win situation wherein organisation benefits reduced direct labour cost and the worker has heightened sense of participation.