Ivan Petrov apparel manufacturing

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ABSTRACT

Ivan Petrov was a member of the newly formed entrepreneur class in Bulgaria; partly out of desire, mostly out of necessity. The changes occurring as the country moved from a centrally planned to a market economy had dumped many individuals like Petrov into the unemployment abyss. Gone were the days of guaranteed lifetime employment requiring minimal effort. In its place was a country with tremendous opportunities coupled with great risk. Petrov found he enjoyed the new challenges but that finding the right venture was elusive. His most recent venture fell on hard times in part because of the difficulty in finding qualified customers. Building on this venture but he saw an opportunity emerge where he could contract with a more secure group of clients outside of Bulgaria. All that stood in his way was the financing.

Keywords: Entrepreneurship, pro forma financial statements, loan proposal, emerging markets

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INTRODUCTION

Ivan Petrov was in the final stages of establishing an offshore textile assembly facility. He had a building, most of the equipment, a ready workforce, and leads on contracts for the assembly of sports coats. All that he lacked was the funding for the remaining piece of equipment that would ensure both a high quality product and fast production times. He was looking for a BGN 25,000 loan to purchase the remaining piece of equipment.

Petrov lives in the northeastern part of Bulgaria in the city of Ruse. Bulgaria is a small country with a population of a little more than 7,500,000 bordered by Greece, Turkey, Romania, Serbia, and Northern Macedonia. Ruse is an ideal location for has type of business venture with a history of apparel manufacturing and direct access to the black sea. While Petrov was optimistic the transition from a centrally planned to market driven economy was challenging; the unemployment rate was over 20 percent and business loans carried interest rates of 18 percent. In addition, there wasn't a great deal of trust or history between SMEs and the banking sector. Banks were used to working with large, state owned enterprises and private business was in its infancy. State-owned enterprises were on the way out & banks needed to generate a return greater than what they could get off of government bonds. A major source of finance for emerging SMEs was the local mafia sector that would loan money at 3+ percent a month with monthly rate as high as 20%. SMEs needed a source of finance offering rates at a reasonable rate. Hurting their cause was the belief among many SME owners that the goal wasn't to develop a long term relationship with a bank but to get a loan and figure out how to not pay it back. Fortunately some banks recognized the opportunity the SME sector presented and the need to better understand this sector, but their patience was not unlimited and they needed to show positive results quickly.

Shortly after the wall came down and Bulgaria transitioned to a more market-driven economy Petrov found success trading in apparel and apparel manufacturing equipment. As his network expanded so did his revenue, reaching almost BGN 200,000 in his best year. Unfortunately, due to an economic crisis that hit the country even private sector (i.e. mafia) financing dried up & his customers and suppliers looked elsewhere. Petrov soon realized owning a production facility would give him far more stability on the market.

Concurrent with establishing his production facility Petrov came to preliminary agreements with three firms for the export of sports coats to Western Europe and the United States. In addition, Petrov has had discussions with other exporters interested in having Petrov assemble 3,100 coats a month beginning in late summer with fees per coat ranging from 5.50 to 8.00 BGN, depending on the time required. Petrov would be responsible for the assembly of the coats, the client would provide all the raw materials.

Petrov approaches the "Bulgarian United" bank in Ruse and presents them with the following set of financial projections. He is requesting a loan of BGN 25,000 to purchase the necessary machine and believes 9% per year with a 5-year payback on the loan is fair. Boyko Borisov was the loan officer assigned to Petrov. Boyko takes the proposal and adds the following notes in the margin based on further discussions with Petrov.

FINANCIAL PROJECTIONS

Petrov presents Boyko with the following projected balance sheet, as indicated in table I in the appendix and income statement, as indicated in table II in the appendix

Notes – Petrov has a number of friends that believe in him. The current cash balance is what his friends have pledged once the facility is up and running. Petrov believes this is an interest free loan with no time frame on the repayment.

Plant and equipment includes the new equipment for BGN 25,000, BGN 10,000 in leasehold improvements (all cosmetic), and BGN 47,000 in equipment he owns and is able to use in this facility. The cost of this equipment was BGN 30,000 and the current value is BGN 15,000. The equipment and leasehold improvements will be depreciated over 5 years using the straight-line method.

Petrov included the value of his experience and expertise in the "know-how" line item. Know-how isn't depreciated.

The only "official" debt is the BGN 25,000 bank loan. To get the balance sheet to balance Petrov subtracted the liabilities from the total assets and put the difference in the "paid in capital" account

Petrov has a "strong agreement" in place for producing 1,000 coats a month that will generate a total of BGN 5,500 in revenue. He is very optimistic he will land other contracts shortly after beginning production and also included revenue for an additional 2,100 coats per month for an additional BGN 15,750.

Petrov plans on kicking off operations in August. Operating at full capacity will require two shifts and a total of 30 employees at BGN 205 per month. Producing 1,000 units per month will require one shift12 employees at the same wage rate. With one shift the electric bill will be half of what is projected.

The faculty closes in July for legally mandated vacations. Employees are paid for July, with electric bill cut to BGN 150 and no transportation costs. Management salaries are independent of sales.

During normal working months Petrov will cover the cost of employee transportation to and from the facility for BGN 750 per month. The transportation cost will remain the same for 12-30 employees. Telephone bills will remain the same for either one or two shifts. Security for the facility won't depend on the level of production.

Miscellaneous expenses should scale down to BGN 500 per month with 1,000 units per month in production.

Petrov built the projections and the loan amortization schedule assuming a 9% interest rate with monthly payments over five years. The current tax rate in Bulgaria was 35%

After a couple of meetings Boyko developed a genuine level of respect and admiration for Petrov. He fully understood the challenging business environment and took great pleasure in helping his clients succeed. That said, the loan decision wasn't his; he was tasked with vetting the client & developing a proposal the loan committee would review and make the decision. Boyko's task was to submit proposals that made sense to the loan committee that also worked for the client. If that wasn't possible better to turn the client away than running the risk of hurting his reputation by submitting a proposal the committee rejects out of hand. The outreach to the SME sector was still new and Boyko knew some of the senior management was skeptical of working in this sector.

Pondering Petrov's proposal and knowing that he only had a little over an hour to get his write-up done Boyko got to work in developing his write-up for the loan committee.

DISCUSSION QUESTIONS

1) Do Petrov's projections and pro forma statements seem reasonable for what he is trying to accomplish? What does the balance sheet look like at the end of the first year if he achieves the expected results? Do you see any unintended consequences in presenting this set of projections to the loan committee?
2) Does the additional information provided by Petrov to Boyko change the apparent financial strength of Petrov's loan proposal?
3) Develop monthly projections (income statement & cash flow) for the first year of operations based on the existing forecast (use the format in the attached spreadsheet). What errors/omissions do you find in the above projected income statement?
4) Develop monthly projections for the first year of operations based on the additional data.
5) Develop a projected balance sheet for the end of the first year assuming the revised projections.
6) Based on the available information would you recommend granting the loan? What would you tell Petrov? Is there a possible solution that may appeal to both Petrov and the bank?

INSTRUCTORS' NOTES

Case description

The primary subject matter of this case concerns the ability of a small business in Bulgaria to obtain the finance needed to grow their business. The challenges they face are multifaceted. Bulgaria still struggles with the transition from a centrally planned economy to a market economy. Banks are unaccustomed to working with SMEs and most entrepreneurs struggle with day to day survival and are not thinking long about building a long term relationship with a financial institution. Rather, most SMEs would do or say whatever was needed to live to fight another day. The case is appropriate in a junior or senior international finance course, first year MBA course, and in a professional education setting designed to build basic business skills with working professionals. The case requires no more than two hours of outside preparation and an hour of class time to discuss.

Case Overview

From 1996 until 2004 I worked in Bulgaria in several USAID sponsored project to assist small and medium enterprises (SMEs). Part of our efforts focused on increasing the flow of loans from the banking sector to SMEs. At the time there wasn't a great deal of trust or history between SMEs and the banking sector. Banks were used to working with large, state owned enterprises and private business was in its infancy. Both sides needed help in understanding that working together greatly increased their odds of surviving and doing well in the future. State-owned enterprises were on the way out & banks needed to generate a return greater than what they could get off of government bonds. A major source of finance for emerging SMEs was the local mafia sector that would loan money at 3+ percent a month (I saw a monthly rate as high as 20%). SMEs needed a source of finance offering rates at a reasonable rate. Hurting their cause was the belief of many SME owners that the goal wasn't to develop a long term relationship with a bank but to get a loan and figure out how to not pay it back.

The case is based on an actual project, some of the names and data have been changed to facilitate discussion. This case was pretty typical of how SMEs operated at the time. I saw the term "know how" used as a balance sheet account numerous times. Never saw a private firm with a set of official financial statements that showed a profit. For example, a firm looking for outside financing could have the equivalent of $1,000,000 in assets, no debt, and a five year operating history with reported losses each year. I'd ask…. "Okay, if you have never generated a profit why would a bank loan you money? Also, "how did you end up with $1M in assets if you never generated a profit?" After an inordinate amount of time looking at their shoes the real story would start to come out – most SMEs picked up the nuances of manipulating their financial statements and given that no one was going to jail for tax evasion they were not going to be the only company in country paying a profit tax. This is fairly common in the region – Greece struggles with this now.

Banks figured out quickly that they needed to be a lot more creative in working with this sector if they wanted to grow their loan portfolio and if they wanted to get paid back. Many banks ignored the "official" statements but did require a believable story as solid collateral. It was a fun time to work in Bulgaria!

Experiences with the Case

Initially we used this case while working in Bulgaria as a way to determine if a new consultant had any "business" sense. At the time we were fortunate to hire some incredibly smart and academically accomplished new graduates. Unfortunately not all of the new hires were able to transition into a consulting role. We began to look beyond GPA & degrees earned to entrepreneurial aptitude, business experience, and the ability to make decisions quickly. We would give a potential new hire 90 minutes to complete their analysis and present their recommendations. Every person that did well on this exercise performed well as a consultant.

In addition I've used this case for a number of years on both the graduate and undergraduate levels in accounting and finance courses I've taught. I've also used it in professional education and certificate courses. The case has been used in the United States, Bulgaria, Bosnia, Croatia, Serbia, Montenegro, Vietnam, China, and Afghanistan. The response has been positive and leads to a solid post case discussion.

Case Solution

Boyko has his hands full with this one. The main question we are trying to answer is if Petrov should get the loan. In making this decision we are mainly interested in knowing that we will 1) get our money back, and 2) receive the interest payments as scheduled. Keep this goal in mind as we work through the following 6 questions in the case and come up with the final recommendation.

1) What do you think of Petrov's pro forma financial statements? What does the balance sheet look like at the end of the first year if he achieves the expected results? Do you see any unintended consequences in presenting this set of projections to the loan committee?
2) Recalculate the current balance sheet to reflect the additional information provided to Boyko by Petrov in their meetings.
3) Develop monthly projections (income statement & cash flow) for the first year of operations based on the existing forecast (use the format in the attached spreadsheet). What errors/omissions do you find in the above projected income statement?
4) Develop monthly projections for the first year of operations based on the additional data.
5) Develop a projected balance sheet for the end of the first year assuming the revised projections.
6) Based on the available information would you recommend granting the loan? What would you tell Petrov? Is there a possible solution that may appeal to both Petrov and the bank?

1) Below is the projected balance sheet if he achieves his anticipated results.
   Based on the projected income statement he will generate approximately BGN 176,000 in profit in the first year. If the only thing holding him back is the loan for the missing piece of equipment why is he only willing to pay 9% on the loan? Not sure Petrov will have much credibility at this point. As indicated in table III in the appendix

2) Recalculate the current balance sheet to reflect the additional information, as indicated in table IV and V in the appendix.

Adjustments.

1. The BGN 20,000 presents an interesting issue. If Petrov can count on these funds he really won't need to borrow BGN 25,000. More on this later…
2. Put the existing machines and equipment on the balance sheet at their current real value. If he could have sold these items for BGN 30,000 he would have. Remember, the reason he is going into this business is because the market for this type of equipment collapsed.
3. The improvements are suspect as well. The amount seems high, they can't serve as collateral, and it doesn't seem like Petrov made a good decision in doing the renovations before having secured all of the financing he needs. I put these on the balance sheet BGN 10,000 as they are not a major issue & not worth creating a point of contention with Petrov.
4. Remove the "know how" from the balance sheet – it does not meet the definition of an asset for balance sheet purposes.
5. Assuming he does get the BGN 20,000 from his friends it should be treated as a current liability or equity. I treated it as a current liability.

Notice what happens to total assets and owners' equity with the revisions.

2. What errors/omissions do you find in the above projected income statement?

When receiving a set of financial statements from a client it's a good idea reasonableness of all of the assumptions and the computational accuracy. Don't assume that because something is prepared in excel or printed it is necessarily correct.

Significant issues–

Revenue – Assumed 3100 pieces per month @ $7.50 per piece. This is a little optimistic given that he only has a contract in place for 1,000 pieces per month @ $5.50 per piece? This isn't really an error or omission but it's hard to believe as a start-up venture Petrov will hit the ground running at 100% capacity. In the error column the original projections don't take into account the closure in July.

Taxes – The tax expense should have been subtracted rather than added.

3. Develop a new loan amortization schedule to reflect the 18% annual interest rate. As indicated in table VI in the appendix.

4, 5, and 6. Develop monthly projections for the first year of operations based on the additional data and using the format in the attached spreadsheet in worksheet 2. Develop monthly cash flow projections using the format in worksheet 2. Develop a projected balance sheet for the end of the first year.

Assumptions – I built the revenue projections on the one contract that Petrov has – 1,000 pieces a month at $5.50 per piece. Since this is a start-up business and he has no track record it is reasonable to be conservative in preparing the projections. I also adjusted some of the other expenses downward to reflect the lower level of activity. The Projected Income & Cash Flow Statements for the year as indicated in tables VII, VIII, and IX in the appendix.

I have a spreadsheet that I can provide with the monthly projections.

7. Based on the available information would you grant the loan?

If I was Boyko I would not recommend granting him BGN 25,000 loan or the following reasons: 1) He is just starting the business & has no track record. His ability to generate a profit will depend on his ability to land other contracts at a price that exceeds all of his costs – can he do this? Who knows, it's too early to tell. 2) The only contract he has will not allow him to operate profitably. And, he doesn't have the BGN 20,000 yet his friends have promised him and without it he could run into significant cash flow problems.

In all likelihood Petrov would not share this opinion – after all it is his business & he would not be engaging in this activity if he didn't see the potential. He probably believes he will land the other contracts at the higher price per piece once he begins operations. And I'm sure he believes he will receive the money from his friends.

What should Boyko suggest? Sometimes "no" is the right answer but most projects aren't so clear cut… the financial institution and the client are both better off if it's possible to come up with a solution that benefits both sides.

Boyko may want to suggest a loan of BGN 5,000 to buy the machine assuming he gets the BGN 20,000 from his friends first. The bank could hold the title to the machine and his other equipment as collateral and make Petrov pay for insurance on the equipment in the event it's lost or stolen. If Petrov is correct he will have no problem in paying off the loan. Also, if he is correct he really doesn't need to hold a high initial cash balance because his minimal working capital requirements. If he is not correct with his projections the bank is protected because they are holding title to a new machine recently purchased for BGN 25,000 as well as the existing equipment. In effect, we transfer a majority of the risk to Petrov, which is reasonable given that if the business is successful he will be the primary beneficiary. If Petrov really believes in the opportunity he will accept the offer… if he doesn't he probably didn't really believe in the opportunity. The bank should also like this because they gain a new client and are fully protected.

The Aftermath

After a series of hard negotiations the bank agreed to loan Petrov BGN 15,000 for five years at 18 percent per year. Petrov's friends did loan him BGN 10,000 and Petrov "found" another BGN 10,000 to invest in the business. Petrov paid the loan off ahead of schedule in three years and while never reached the results his projections anticipated he did well enough to buy a small hotel six years later on the coast.

Appendix

Table I

Ivan Petrov
Original Projections
Balance Sheet

		30 July 20xx
Current Assets		
Cash	**BGN**	**20,000**
Plant & Equipment		82,000
Less: Accumulated Depreciation		-
Net Plant & Equipment		82,000
know-how		50,000
Total Assets	**BGN**	**152,000**
Liabilities	**BGN**	**25,000**
Paid In Capital		127,000
Retained Earnings		-
Total Liabilities & Equity	**BGN**	**152,000**

Table II

Original Projections
Income Statement

Total Revenues	**BGN**	**279,000**
Direct Costs		
Employee Salaries		73,800
COGS		73,800
Gross Margin		205,200
Operating Expenses		
Rent for facility		3,600
Electricity		18,000
Administrative Salaries		7,200
Telephone		2,400
Transportation		9,000
Security		4,200
Depreciation		16,400
Miscellaneous		12,000
Total Operating Expenses		72,800
EBIT		132,400
Interest Expense		2,082
EBT		130,318
Taxes		45,611
Net Income/(Loss)	**BGN**	**175,930**

Table III

Original Projections
Balance Sheet

		30 July 20xx		7/30/20xx
Current Assets				
Cash	**BGN**	**20,000**	**BGN**	**208,184**
Plant & Equipment		82,000		82,000
Less: Accumulated Depreciation		-		(16,400)
Net Plant & Equipment		82,000		65,600
know-how		50,000		50,000
Total Assets	**BGN**	**152,000**	**BGN**	**323,784**
Liabilities	**BGN**	**25,000**	**BGN**	**20,854**
Paid In Capital		127,000		127,000
Retained Earnings		-		175,930
Total Liabilities & Equity	**BGN**	**152,000**	**BGN**	**323,784**

Table IV

Original Balance Sheet

Current Assets		
Cash	**BGN**	**20,000**
Plant & Equipment		82,000
Less: Accumulated Depreciation		-
Net Plant & Equipment		82,000
know-how		50,000
Total Assets	**BGN**	**152,000**
Liabilities	**BGN**	**25,000**
Paid In Capital		127,000
Retained Earnings		-
Total Liabilities & Equity	**BGN**	**152,000**

Table V

Revised Balance Sheet

Current Assets		
Cash	**BGN**	**20,000**
Fixed Assets		
Machines and equipment - old		15,000
New machine		25,000
Improvements		10,000
Less: Accumulated Depreciation		-
Net Plant & Equipment		50,000
Know-how		
Total assets	**BGN**	**70,000**
Current Liabilities	**BGN**	**20,000**
Long-term loan		25,000
Share capital		25,000
Retained Earnings		-
Total Liabilities&Equity	**BGN**	**70,000**

Table VI

Loan amount	25,000
Monthly interest rate	0.015
Loan term (months)	60
Loan payment	635

default:
18% per year = 1.5% per month

		(1) X .015		(3) - (2)	(1) - (4)
	1	2	3	4	5
	Beginning Balance	**Interest Payment**	**Loan Payment**	**Principle Payment**	**Ending Balance**
1	25,000	375	635	260	24,740
2	24,740	371	635	264	24,476
3	24,476	367	635	268	24,209
4	24,209	363	635	272	23,937
5	23,937	359	635	276	23,661
6	23,661	355	635	280	23,381
7	23,381	351	635	284	23,097
8	23,097	346	635	288	22,809
9	22,809	342	635	293	22,516
10	22,516	338	635	297	22,219
11	22,219	333	635	302	21,918
12	21,918	329	635	306	21,611

Table VII

Projected Income Statement
1,000 jackets produced monthly

	1st year
Jackets Produced	11,000
Revenue per Jacket	5.50
Total Revenues	**BGN 60,500**
Direct Costs	
Employee Salaries	29,520
COGS	**29,520**
Gross Margin	**30,980**
Operating Expenses	
Rent for facility	3,600
Electricity	8,400
Administrative Salaries	7,200
Telephone	2,400
Transportation	3,850
Security	4,200
Depreciation	10,000
Miscellaneous	6,000
Total Operating Expenses	**45,650**
EBIT	**(14,670)**
Interest Expense	**4,229**
EBT	**(18,899)**
Taxes	-
Net Income/(Loss)	**BGN (18,899)**

Table VIII

Projected Income Statement
1,000 jackets produced monthly

	1st year
Jackets Produced	11,000
Revenue per Jacket	5.50
Total Revenues	**BGN 60,500**
Direct Costs	
Employee Salaries	29,520
COGS	**29,520**
Gross Margin	**30,980**
Operating Expenses	
Rent for facility	3,600
Electricity	8,400
Administrative Salaries	7,200
Telephone	2,400
Transportation	3,850
Security	4,200
Depreciation	10,000
Miscellaneous	6,000
Total Operating Expenses	**45,650**
EBIT	**(14,670)**
Interest Expense	**4,229**
EBT	**(18,899)**
Taxes	-
Net Income/(Loss)	**BGN (18,899)**

Table VIII

Projected Statement of Cash Flow

	Total 1 year
Net Income	**BGN (18,899)**
+ Depreciation	10,000
Net Cash Flow from Operations	**BGN (8,899)**
Less: Principal Repayments	**3,389**
Net Change in Cash	**(12,288)**
Beginning Cash	20,000
Net Cash Flow	(12,288)
Ending Cash	**BGN 7,712**

Table IX

Realistic Balance

		30 July 20xx		30 July 20xx
Current Assets				
Cash	**BGN**	**20,000**	**BGN**	**7,712**
Fixed Assets				
Machines and equipment - old		15,000		15,000
New machine		25,000		25,000
Improvements		10,000		10,000
Less: Accumulated Depreciation		-		(10,000)
Net Plant & Equipment		50,000		40,000
Know-how				
Total assets	**BGN**	**70,000**	**BGN**	**47,712**
Current Liabilities	**BGN**	**20,000**	**BGN**	**20,000**
Long-term loan		25,000		21,611
Share capital		25,000		25,000
Retained Earnings		-		(18,899)
Total Liabilities & Equity	**BGN**	**70,000**	**BGN**	**47,712**