## FEASIBILITY STUDY OF A PRIVATE SCHOOL IN THE UNITED ARAB EMIRATES (\*)

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#### **ABSTRACT**

The paper investigates the setting up of a private school in the emerging market of Al Ain, United Arab Emirates. The study adopts common criteria for conducting a feasibility study, and develops pro forma financial statements. The findings show that the project has a positive net present value, while the internal rate of return is about 13%, which is almost double the weighted average of the cost of capital. The discounted payback period is around 10 years. The recommendation is to invest in this proposal, since all the analysis techniques suggest it will be successful.

**Keywords:** Feasibility study; Private school; Financial statements; Net present value; Internal rate of return; payback period; UAE.

#### 1. INTRODUCTION

Like any other business venture, opening a new school requires a feasibility study. The requirements for opening a school are not exactly the same as those of other businesses, as many other aspects must be taken into consideration. The success of a society is related to the success of its schools. Schools are the institutions in which future leaders are produced for every walk of life. These leaders can take the society to new heights of prosperity and development. The products of schools are not commodities, but human beings—and every individual is different. Due to the commoditization of education, outcomes at different schools will significantly vary, as will the quality of higher education, even if the degree offered is the same (Cayton-Kupiec, 2007).

The owners of the proposed school in this feasibility study currently own Al Ain University of Science & Technology (AAU), Al Ain, United Arab Emirates (UAE). These owners handle all investment issues and are able to guarantee quality education by providing the best services and infrastructure to the community of Al Ain city, which is the targeted community in this project. The owners assigned the researchers to conduct this feasibility study for their proposed project.

Al Ain School is intended to provide education to the highest standard of academic excellence. To this end, the American curriculum has been selected. This will be duly approved by the Abu Dhabi Education Council (ADEC), the licensing authority of school education in the Al Ain zone (ADEC, 2013). The curriculum is expected to enable individual students to utilize their full potential within a stimulating, secure, and caring environment.

There will be an age requirement for admission to any grade, as per the stipulations of the ADEC (Arabian Campus, 2016). Arabic language, Islamic studies, and social studies will be included as a part of the curriculum in all grades to comply with ADEC requirements. It is expected that the proposed project will offer a range of job opportunities and adequate salaries, as well as providing a reasonable profit to the owners.

The targeted population is expatriates of various nationalities, and local citizens of the city of Al Ain. The social objective of the project is to provide education to a large body of members of this population, and the American curriculum is considered the most appropriate for this aim (WSA, 2016). The American curriculum enables all-round development of students. If they wish to pursue higher education at a university, they will be required to take either SATs or Advance Placement tests conducted by the College Board on behalf of the university (College Board, 2016). Moreover, if, at any point in their education, students have to return to their country of domicile, they will be able to continue with their studies without being socially or academically disadvantaged, if the American curriculum is available and followed in their respective countries. As the American curriculum emphasizes creativity and an innovative approach, it is in line with the UAE government's stated mission and vision to ensure its citizen has these skills (Ministry of Education, 2015).

Attractive features of the school in addition to those mentioned above will include its location. The school will be situated within the campus of AAU. Thus, students will be able to receive high-quality education at moderate fees in a prime location, and within the environment of a university, which will be a future destination for many of them. The expertise available from the university will also help to ensure a high-quality system. The location is also

free of traffic issues because most of the schools are located in the Falaj Hazza district of Al-Ain, so at the school time, there are a lot of cars approaching and coming out at the same time which creates traffic jams. Thus, location could be a prime reason for attracting parents, and will help to ensure the success of the project.

The university has a college of education, which requires schools for the internship of their students. Having a school in the premises of the university will be an extra advantage for the college of education. In addition, many parents wish their children to be educated through English medium of instruction. The project will have a large market, particularly in terms of the numerous non-national children living in Al Ain city and Buraimi, Oman.

The study of this project has a good reason that supports it. We believe that the key issues are identified in this study, and that the findings of the study can be viewed with a good degree of confidence.

## 2. ENVIRONMENTAL STUDY

As progress in education is directly linked with the economic development of a country, consequently, a highly-educated person will be offered a high salary, which in turn, will increase the level of economic output of that country. This can be seen as a justification of investment in education industry.

The UAE has been witnessing dramatic changes in all sectors, including economy, infrastructure, environment, social development, and so on. The UAE is ranked 12th in the world according to the World Competitiveness Yearbook (IMD, 2016), and 17th in the world according to the World Economic Forum's Global Competitiveness Report (WEF, 2016). It gives a strong indication that the investment climate is promising to attract new national and international investors.

A positive relationship between education and economic growth has been well established. For this reason, private education is receiving great attention from the UAE government and the large part of the UAE population it serves (Ministry of Education, 2010).

A large portion of immigrants from different countries lives in the UAE. The country provides them all sort of safety, security and liberty. Thus, it is very important to provide those expatriates with suitable education for their children. Although there are many UAE government schools for UAE nationals, the primary level of private schools still comprises a considerable number of UAE nationals whose parents want their children to master the English language and computers. For this reason, the UAE government is always trying to help and support the private education sector to prosper by providing a stable climate and advice.

To have a well-equipped labor force available in the job market for the economic development of the country, a constant updating approach and timely investment in infrastructure are needed in the educational sector. For that reason, the UAE government has already chalked out a plan for educational development which is to be achieved by the end of 2020 (Ministry of Education, 2010).

The gross domestic product (GDP) per capita in the UAE fluctuates in line with crude oil prices. It continuously increased from US\$34,000 in 2000 to US\$40,000 in 2015, and the GDP per capita in the UAE has been close to that of Austria, Ireland, and Netherlands in most years (The World Bank, 2016).

According to census data, the population increased in the country by around 5.5% annually from 1995–2005, and reached more than 8 million people in 2010. Non-nationals comprised 83% of the total population in 2006 and increased to 88% in 2010. The majority of the citizens live in the Emirate of Abu Dhabi, which comprised 42% in 2010 (UAE National Bureau of Statistics, 2011). The population of the Emirate of Abu Dhabi reached 2.8 million people in 2015, of which 26.5% live in Al Ain region (ADEC, 2016).

Education is an important sector in the economy. People who work in teaching represented 4.3% of the total employed workforce in the UAE in 2009. The number of schools increased by 1.7% in 2013/2014, while the number of classrooms increased by 24% and the number of students by 21%. The number of classrooms and students is growing faster than the number of schools (not including colleges and other higher-education institutes), and there is strong evidence of a perceived demand for new schools. Educational services are controlled by the private sector. Private schools are dominant at kindergarten level by 80%, first stage by 75%, second stage by 68%, and secondary level by 60% (UFCSA, 2015).

Since the owner of the proposed school is the AAU, the school will legally be treated as a company. In order to get a license for the establishment of a private school, the company must meet the following requirements: (1) the percentage of contribution by nationals to the share capital must be 51% or more; (2) the company must be registered with a competent governmental entity; and (3) the company must be able to meet all financial requirements (Abu Dhabi Education Council, 2016).

The proposed school location is free from the traffic hazards faced by parents in the school district of Falaj Hazza, Al Ain. Stakeholders in the beginning stages would primarily be faculty members and administrative staff of AAU. The transportation problem will thus be minimized. AAU staff can take care of their wards while on duty, and will have time to visit the school for inspection of their wards. Since AAU faculty members receive the education allowances of their children from the university as a part of their contracts, the tuition fees of the children can directly be paid by the AAU. When the school opens, it will have a capacity of almost 250 students, who will register for various classes. The school will face no revenue issues as described in Table 2. Students will be under the umbrella of the university while they are studying at the school. The expertise of existing faculty members of the university will also be an advantage to the school. Students will be able to take part in the many workshops and programs that the university organizes.

Mitigating environmental and community service concerns have long been goals for leading schools. The performance of a school is measured not only in terms of the teaching provided to students, but also in terms of the role the school plays in the development of the community. Today, schools are places where human intellect is cultivated to its maximum capacity.

#### 3. MARKETING STUDY

Since the Al Ain School will provide educational services to students, it is considered to fall within the service sector, specifically education. As a private school in Al Ain City, it will be categorized under general social services, with potential customers drawn from the large number of expatriate children and nationals who wish to attend private, rather than government, schools. The Al Ain School's target market will be the population of Al Ain City, UAE, in addition to Buraimi city of the Sultanate of Oman. Students will include both males and females, starting from the age of three up to 18. The school will be open to all social classes and to people from all backgrounds. The type of education offered is intended to satisfy this broad range of customers.

The Al Ain School will strive to satisfy customer needs and demands through a set of activities known collectively as customer services. The level and quality of education and services that the school management aims to provide for its customers will be based on high customer service standards. Many companies claim that customer services are their top priority, and clearly, without customers, there would be no sales or profits. Services may therefore be as important in attracting customers and developing sales as the cost and quality of the organization's products are.

The school will hire a public relations officer who will look after the publicity and marketing areas of the school. Advertisements will be posted on the school's website, Facebook, and other social media for the following offers: free education to one sibling when at least three are registered at the school; a 50% fee reduction for distinctive students; competitive fees; and special discounts for low-income families (Malik, et al., 2015).

There are plenty of competitors in the private educational sector in Al Ain City, but the top five are Al Chouifat School, Al Sonowbar School, Al Ain English Speaking School, Our Own English High School, and Al-Dhafra Private School. Taking this into consideration, the school's management will aim to overcome the competition by:

- Providing a variety of services. At the basic level, they will provide fair prices and high quality. Quality is an important dimension of customer services and often determines customer satisfaction.
- Addressing the varied service needs of customers. In order to do this the school must analyze, and adapt to, customer preferences. Attention to customer needs and desires is crucial in increasing customer satisfaction. A school's failure to provide the desired level of services may result in a loss of customers.
- Developing measurable standards of services through which the school may examine the service levels that competitors offer. The school should aim to match or exceed those standards (or expectations) when the costs of providing related services can be justified. This will enable the school to guarantee a high service performance that will attract customers.
- Clearly communicating standards to both customers and employees, and enforce them diligently.

According to Sidra Shaheen, HR manager of the AAU, there are approximately 92 faculty members in the Al Ain campus at present (S. Shaheen, interview, June 22, 2016). The university provides education allowances to a maximum of three children to each faculty member. If we assume that, on the average, each faculty member will have two children in the school then we can expect 184 students to begin with. Supposing that only 70% of these will register, about 130 children of faculty members will be registered at the school in the very first year. Moreover,

there are about 50 administrative staff members in the university. If we assume that only 50% of these will register their children in the school, this it will add a further 50 students, making a total of 180 in the first year.

Finally, marketing and advertising communications about the school having well-qualified teachers and being patronized by AAU is expected to attract a further 70 students from the nearby community. This will increase the total to 250 students in the first year. The school will start providing education from KG-1 up to grade 12 from the very first year.

The school can start by charging competitive average annual fees of AED 20,000 per student. This will bring estimated annual revenues of AED 5 million in the first year. The revenues can be expected to increase 15% annually, bringing AED 5.75 million in the second year and consequently AED 8.74 million in the fifth year, as shown in Table 2.

#### 4. TECHNICAL STUDY

Operations management in the school can be described as follows:

- Input: Admission to Al Ain School will start from kindergarten. The child must be three years old by April 15th of the year admission in which admission is sought. The school will accept transfers from other schools to grades up to 12, taking into consideration an admission examination.
- Process: By employing experienced teachers and providing different types of labs and furnished classrooms, the school will provide students with the highest standards of academic excellence. In addition, the students will obtain the knowledge, skills, and tools they will need to meet the challenges of the future.
- Output: After taking their grade 12 examination at the age of 18, students will be prepared for and can transfer to international universities.

Transfers for all levels in each academic year will commence on March 1 each year. In all cases of admissions, process laid down by the Ministry of Education will be adhered to. The last date of admission into lower kindergarten and grade -1 will be on June 15th of each year, except in the case of transfer from another school with a valid transfer certificate.

The Al Ain School will initially provide two different levels of education: primary and secondary. The primary level will be divided into three stages:

- Early Years, i.e. kindergarten classes (children aged 3-5).
- Key Stage One, i.e. years 1 and 2 (children aged 6-7).
- Key Stage two, i.e. years 3 to 6 (children aged 7-11).

The primary level will incorporate early learning goals and a baseline assessment, which is in line with current UAE and USA practices.

The school will encourage children to achieve their best and become independent learners. Care and tolerance for others will be fostered, along with an understanding of making positive contributions to society and the world we live in.

The secondary level will be divided into two Key Stages: Key Stage Three (years 7–9; children aged 12–15) and Key Stage Four (years 10–12; children aged 16–18). Specialized subject teachers and laboratory technicians will teach all subjects. Throughout the primary and secondary school, a broad and balanced curriculum will be offered, which encompasses the aims and objectives of the national curricula of the UAE and USA. According to this system, students at the age of 18 will sit for the 12th-grade exams and the SAT exam.

The school will place great value on non-core subjects, such as music, art, physical education, French, and German, in addition to Arabic. It will encourage the use of information technology wherever possible, and will have a suite containing a network of 20 Pentium computers. The school will encourage tolerance and respect for the individuality and uniqueness of others, as well as fostering in students a desire to continue contributing positively to society upon graduation.

Promoting a blend of traditional values, universal brotherhood, and progressive attitudes, the school will prepare students to become active members of the global community. It will provide opportunities for students to realize their all-round development through a rich variety of co-curricular activities and school events. The school will serve the needs of a multicultural community. Students from different backgrounds will learn and play together, and in doing so, will learn how to co-exist in a cosmopolitan environment, which calls for understanding and tolerance of differences.

The school will also provide a strong foundation for the development of leadership qualities in pupils by involving them in a well-structured program that will help them learn how to take on responsibilities and make

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important decisions. With a variety of co-curricular activities and a holistic approach, the students will grow into outstanding, well-balanced, and competent individuals who will be able to confidently face future problems with great ease.

The school will provide a solid academic foundation and a rich co-curricular program complemented by a focus on four core values: global outlook, universal values, leadership qualities, and critical thinking. These will be carefully blended as a part of the planned curriculum from the kindergarten to the senior years, and will be woven throughout the fabric of school life.

In the modern age, it is vital to keep pace with the fast-developing human knowledge and modern technology, and with continuously accelerating scientific achievements. This, in turn, emphasizes the need for lifelong learning across all community groups and classes. It is of vital importance to offer continuing education services in order to establish closer ties with the community. This also constitutes a significant part of Al Ain School's mission; that is, to become a leading institution that provides a high standard of education and a source of cultural and scientific knowledge, and that is committed to undertaking the burden of educating and developing individuals in all areas.

Table 1. AL-AIN SCHOOL

Start-up costs

(Thousands of UAE dirham)

| One time requirements before start-up | Items<br>already<br>purchased  | Items still<br>needed<br>before<br>start-up |  |  |
|---------------------------------------|--|---|--|--|
| Professional services                 | 20   | 50  |  |  |
| Advertising and promotions            | 30   | 40  |  |  |
| Deposits for utilities                | ing series and the control   | 4   |  |  |
| Licenses & permits                    |  | 115   |  |  |
| Prepaid insurance                     | A Service of the serv | 20  |  |  |
| Salary & wages                        |  | 300   |  |  |
| Learning Resources                    | 85   | 115   |  |  |
| Buses                                 |  | 400   |  |  |
| Tools & supplies                      | a. 2 1. 100 a 2 i  | 40  |  |  |
| Machines & equipment                  |  | 300   |  |  |
| Furniture & fixtures                  | 15   | 71  |  |  |
| Building improvements                 |  | 100   |  |  |
| Rent                                  | 50   |   |  |  |
| Land and buildings                    |  | 5,500                                       |  |  |
| Starting inventory                    | 100  | 245   |  |  |
| Working capital                       | 1,000  |   |  |  |
| Total                                 | 1,300  | 7,300                                       |  |  |
| Total estimated start-up costs        | 8,600  |   |  |  |

Before starting any business, start-up costs must be met via investment. Table 1 shows that a sum of Dhs 70,000 should be spent on professional services, such as conducting a detailed feasibility study. The school should immediately start to design and develop a website, which will cost Dhs 70,000. Obtaining the relevant licenses and permits from the Abu Dhabi Education Council and Al Ain Municipality will entail fees worth a further Dhs 115,000.

The school will hire key personnel six months prior to the first operating year. This will cost around Dhs 300,000. Four school buses will be purchased, costing a total of around Dhs 400,000. The school will also need to be equipped and furnished, and computers and labs will total Dhs 300,000.

To start operations, the school will need 28 classrooms for the students and 22 extra rooms for other facilities. Although there is land available in the AAU premises, it will be necessary to construct buildings for the school; this is likely to cost around Dhs 5.5 million, assuming the cost per square meter is Dhs 1,800 (Al-Wazzan, interview, September 8, 2016).

Dhs 345,000 will be allocated to purchase uniforms, textbooks, and stationery. The school will need to spend an extra Dhs 110,000 for learning resources, even though it already has reference books worth Dhs 85,000. Prior to the first operating year, funds will be needed as working capital. A sum of Dhs 1 million will be allocated for this purpose. The total estimated start-up costs will thus be Dhs 8.6 million.

## 5. ADMINISTRATIVE AND ORGANIZATIONAL STUDY

Based on Al Ain School's proposal, it will be implemented a three-tier management system in which there will be a board of directors, a school principal, and teaching and non-teaching staff. The board of directors will be led by the owner of AAU, who will evaluate the performance of the school's management and set the strategic goals of the school.

A highly-experienced person will be employed as principal, and will be given full authority over the school, and a good salary to incentivize high performance. He/She will report to the board of directors, who will evaluate his/her performance as principal. He/She will be responsible for hiring an adequate number of teaching and non-teaching staff, and will follow up on the performance of all staff and the financial situation of the institution, and school services such as transportation, catering, and maintenance.

In the first year, Al Ain School will appoint 35 teachers for different subjects at a salary of Dhs 5,000 per month. A public relations officer will also be hired; their main responsibility will be to deal and comply with officials and government requirements, and he/she will also conduct advertising and marketing strategies.

A counselor will be hired to help resolve students' problems and communicate with students' parents in such a way that they feel as though the school is a second home. Some courses will require demonstrations in a lab, so two laboratory technicians will be appointed for practical experiments in the sciences and using computers.

Other supportive staff, such as a secretary, an accountant, four bus drivers, five office assistants, and two security guards, will also be recruited. Teachers and all supportive staff will report to the school principal. The owner of AAU will deal with all issues required for any project of the school and bear all expenses incurred in relation to this.

As stated in the marketing study, the school's management expects initial registration of about 250 students in the very first operating year. If the average tuition fee is Dhs 20,000 per student, this will generate revenue of Dhs 5 million in the first year. As shown in Table 2, if the number of students increases by 15% each year, revenues will increase accordingly.

The price of uniforms and textbooks for each student will be around Dhs 800, and will cost the school another Dhs 200,000 in the first operational year. This will increase yearly based on the expected 15% increase in the number of students. The school will pay an amount of Dhs 200,000 annually to AAU, as rent for the land in which they will build school structures, as these will be on the AAU campus.

Table 2. AL-AIN SCHOOL

Pro Forma Income Statement

For the year ended August 31

| uta asada falasi - yangan | 1 <sup>st</sup><br>Year | 2 <sup>nd</sup><br>Year | 3 <sup>rd</sup><br>Year | 4 <sup>th</sup><br>Year | 5 <sup>th</sup><br>Year |
|---------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Sales / Revenues          | 5,000                   | 5,750                   | 6,613                   | 7,604                   | 8,745                   |
| Cost of revenues          |                         | NEED AND ASSESSMENT     | Niger of th             | avaa 1 <sub>955</sub>   | (2015) - (C             |
| Textbooks                 | 200                     | 230                     | 265                     | 304                     | 350                     |
| Rent                      | 200                     | 200                     | 200                     | 200                     | 200                     |
| Advertising expense       | 150                     | 150                     | 150                     | 150                     | 150                     |
| Postage and stationery    | 65                      | 75                      | 86                      | 99                      | 114                     |
| Telephone and Internet    | 60                      | 66                      | 73                      | 80                      | 88                      |

| Net Income           | -192  | 279   | 995   | 1,751 | 2,707 |
|----------------------|-------|-------|-------|-------|-------|
| Total expenses       | 5,192 | 5,471 | 5,617 | 5,854 | 6,038 |
| Government fees      | 60    | 60    | 60    | 60    | 60    |
| Interest             | 240   | 192   | 144   | 96    | 48    |
| Depreciation expense | 477   | 477   | 497   | 597   | 632   |
| Miscellaneous        | 92    | 101   | 111   | 122   | 135   |
| Insurance expense    | 120   | 124   | 128   | 132   | 136   |
| Outside services     | 98    | 118   | 137   | 157   | 176   |
| Utilities expense    | 180   | 198   | 218   | 240   | 264   |
| Office salaries      | 3,250 | 3,481 | 3,549 | 3,617 | 3,686 |

The school will need to allocate a sum of Dhs 150,000 each year to cover the cost of advertising in local media. The school will buy stationery equating to Dhs 65,000 for the first year (a rate of Dhs 260 per student). The cost of these items may also increase by 15%, based on the increase in the number of students. The school will need to pay an amount of Dhs 60,000 against telecommunication expenses for the first year. Telephone and internet costs may also increase by 10%.

Since the beginning of the first operating year, the school will have 35 teachers and 15 nonteaching or supporting staff at a rate of Dhs 5,000 each per month. This will require allocation of a sum of Dhs 65,000/year, including gratuity money. Thus the total salaries will amount to Dhs 3.25 million annually. According to the UAE Labor Law, every employee at the end of his/her contract will receive a gratuity equal to one month of his/her last salary for each year of the service to the organization he/she worked for (UAE Ministry of Human Resources and Emiratisation, 2016).

The utility costs will be approximately Dhs 180,000 in the first year. This cost might increase by 10% each year. The school will also have to pay Dhs 20,000 in the first year as an installment for building insurance. It will pay an additional Dhs 2000 for each staff member as health insurance. These costs will amount to Dhs 120,000 in the first year, but will increase each subsequent year with the increasing the number of staff. Governmental fees for the renewal of licenses and visas will cost Dhs 60,000 each year.

The useful life of computers and other equipment is three years, while that of furniture and fixtures is five years and the building is 20 years. If we assume there is no salvage value and use straight-line depreciation, the depreciation expense will be Dhs 477,000 annually.

The school can easily get a loan of Dhs 4 million at an annual interest rate of 6% per annum. The school will be paying interest at the end of each year on the remaining amount of that loan. This will cost Dhs 240,000 in the first year and the amount of interest each year will continuously decrease until the last year. Thus, the final amount of the interest to be paid would be Dhs 48,000 against the remaining amount of Dhs 800,000 left to be paid for the final year (Singh, et al., 2011).

The difference between revenues and total expenses represents the net income (profit). The school will not be able to achieve a break-even point at the end of the first year, but after that it will start moving upwards towards the positive side of the profit making and at the end of the third year it will generate a profit of approximately Dhs 1 million. Since the school will be a long-term investment organization, it will generate a good profit in the fourth year and a promising amount of profit in the fifth year of its operation, as stated in the pro forma income statement (Table 2). This leads to an initial conclusion that the proposal is a feasible and profitable one.

#### 6. FINANCIAL STUDY

Table 4 shows that the owner of the university will apply for a loan of Dhs 4 million, which is a very small amount of money based on the reputation and assets of AAU. The university has two campuses in Al-Ain and Abu Dhabi. The university itself will finance more than 50% of the start-up costs, of which 28% of the required amount is already available in the Al Ain campus, as shown in Table 1.

#### Table 3. AL-AIN SCHOOL

## **Pro Forma Retained Earnings Statement**

For the year ended August 31

(Thousands of UAE Dirham)

|                             | 1 <sup>st</sup> Year | 2 <sup>nd</sup> Year | 3 <sup>rd</sup> Year | 4 <sup>th</sup> Year | 5 <sup>th</sup> Year |
|-----------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Retained Earning, beginning | 0                    | -192                 | 87                   | 1,082                | 2,332                |
| Net Income (Loss)           | -192                 | 279                  | 995                  | 1,751                | 2,707                |
| Less: Drawing               | 0                    | 0                    | 0                    | -500                 | -1,000               |
| Retained Earning, ending    | -192                 | 87                   | 1,082                | 2,332                | 4,039                |

The accounts receivable amount during operational years is expected to be around 5% of revenues, which will be generated mostly from tuition fees. The inventory, which includes uniform, textbooks, and stationery, will grow by 5% along with the increase in students. The university may sometimes pay rent or health insurance fees for the part of the coming year in advance. If the university pays 25% of such amount prior to the date then it is expected to pay Dhs 82,000 only for the first year. These prepaid expenses may also increase by 5% annually (Garrison, Noreen, & Brewer, 2006).

The school will buy a bus worth Dhs 100,000 in the third year. In the fourth year, it will replace the old computers and other equipment with new ones worth Dhs 300,000. In the fifth year, an additional amount of Dhs 400,000 will be spent to add a new bus and to renovate and repair the building structure, as stated in Table 5.

For end-of-service benefits, called gratuities, one month of salary will be kept in accounts payable; this equates to approximately 1/13 of the total salaries. The school may delay paying part of expenses such as telephone, internet, utility bills, and outside expenses. For the first year, this amount is expected to be around Dhs 164,000. The accrued expense will grow by 5%. The loan will be cleared at the end of the fifth year, as Dhs 800,000 will be allocated to pay the loan installments each year.

The owners will not withdraw any amount from the school account for the first three years. In the fourth year, they may withdraw Dhs 500,000 from the profit of Dhs 1.75 million. In the fifth year, the profit payout could be Dhs 1 million, since profit at that time would be less than Dhs 3 million, as stated in Table 3. Table 5 represents the projected cash flow statement, which is consistent with the pro forma balance sheets in table 4. All tables are constructed keeping in mind international accounting standards (Gitman & Zutter, 2012).

During the period of first five years, the school may expect to obtain a satisfactory financial position. The cash will initially decrease to cover the losses of the first year and to pay installments; after that, the cash will increase up to 32% of total revenues (Schroeder, Clark, & Cathey, 2011). From the beginning of the third year, the school will start replacing the depreciated assets. After five years of operation, the capital amount will increase to Dhs 8.6 million from Dhs 4.6 million. The owners may enjoy a profit payout from the fourth year. This suggests that the proposal is feasible and the school will be profitable.

# Table 4. AL-AIN SCHOOL **Pro Forma Balance Sheets**

As in August 31

(Thousands of UAE dirham)

|                                       | Start-up    | 1st Year | 2 <sup>nd</sup> Year | 3 <sup>rd</sup> Year | 4 <sup>th</sup> Year | 5 <sup>th</sup> Year |
|---------------------------------------|-------------|----------|----------------------|----------------------|----------------------|----------------------|
| Assets                                |             |          |                      |                      |                      | des X                |
| Cash                                  | 1000        | 554      | 476                  | 1016                 | 1704                 | 2775                 |
| Accounts receivable                   |             | 250      | 288                  | 331                  | 380                  | 437                  |
| Supplies                              | 345         | 362      | 380                  | 399                  | 419                  | 440                  |
| Prepaid expenses                      | 4           | 82       | 86                   | 90                   | 95                   | 100                  |
| Total current assets                  | 1349        | 1248     | 1230                 | 1836                 | 2598                 | 3752                 |
| Fixed assets                          | 6386        | 6386     | 6386                 | 6486                 | 6786                 | 7186                 |
| Other assets                          | 865         | 865      | 865                  | 865                  | 865                  | 865                  |
| Less: accumulated depreciation        | 0           | 477      | 954                  | 1452                 | 2049                 | 2681                 |
| Net fixed assets                      | 6386        | 5909     | 5432                 | 5034                 | 4737                 | 4505                 |
| Total assets                          | <u>8600</u> | 8022     | <u>7526</u>          | <u>7736</u>          | <u>8200</u>          | 9122                 |
| Liabilities and capital account       |             |          |                      |                      | terit in             | the Til              |
| Accounts payable                      | 3-          | 250      | 268                  | 273                  | 278                  | 284                  |
| Accrued expenses                      |             | 164      | 172                  | 181                  | 190                  | 199                  |
| Total current liabilities             | 0           | 414      | 440                  | 454                  | 468                  | 483                  |
| Long-term loan                        | 4000        | 3200     | 2400                 | 1600                 | 800                  | m12541               |
| Total liabilities                     | 4000        | 3614     | 2840                 | 2054                 | 1268                 | 483                  |
| Capital                               | 4600        | 4600     | 4600                 | 4600                 | 4600                 | 4600                 |
| Retained earnings                     | 0           | -192     | 87                   | 1082                 | 2332                 | 4039                 |
| Total capital account                 | 4600        | 4408     | 4687                 | 5682                 | 6932                 | 8639                 |
| Total Liabilities and capital account | 8600        | 8022     | 7526                 | <u>7736</u>          | 8200                 | 9122                 |

#### 7. PROJECT EVALUATION

The current study provides a feasibility study of a private school in an emerging market; i.e., the UAE. The pro forma financial statements, in conjunction with a project evaluation, provide support for accepting this promising project. The project will achieve a negative net income in the first year; however, it will shift to a positive net income with a growing trend in subsequent years. The project will provide positive cash flows from the third year of business activities.

There are many numerical techniques available to evaluate the net benefit of a project. Most of these are financial in nature and rely on future estimates of revenues and costs. The most elementary techniques used to evaluate the current project are net present value, internal rate of return, and payback period. All techniques used to evaluate the current project refer to acceptance of the project. The first technique, i.e. Net Present Value (NPV) is calculated as follows:

$$NPV = \sum \{ (B - C)_t / (1 + i)^t \} - I_0$$
 [1]

Where  $(B-C)_t$  is the inflow minus the outflow for period t, i is the discount rate (weighted average of cost of capital), and  $I_0$  is initial investment costs.

## Table 5. AL-AIN SCHOOL Projected Statement of Cash Flows

For the year ended August 31

| A A SECULIAR SECURE SELECTION OF THE SECURITY | (Thousands of UAE dirham) |                      |                      |                      |                      |  |  |
|---|---------------------------|----------------------|----------------------|----------------------|----------------------|--|--|
|   | 1 <sup>st</sup> Year      | 2 <sup>nd</sup> Year | 3 <sup>rd</sup> Year | 4 <sup>th</sup> Year | 5 <sup>th</sup> Year |  |  |
| Cash flows from operating   |                           |                      |                      |                      |                      |  |  |
| Net income  | -192                      | 279                  | 995                  | 1,751                | 2,707                |  |  |
| Depreciation  | 477                       | 477                  | 497                  | 597                  | 632                  |  |  |
| Increase in accounts receivable   | -250                      | -38                  | -43                  | -50                  | -57                  |  |  |
| Increase in supplies  | -17                       | -18                  | -19                  | -20                  | -21                  |  |  |
| Increase in prepaid expenses  | -78                       | -4                   | -4                   | -5                   | -5                   |  |  |
| Increase in accounts payable  | 250                       | 18                   | 5                    | 5                    | 5                    |  |  |
| Increase in accrued expenses  | 164                       | 8                    | . 9                  | 9                    | 9                    |  |  |
| net Cash flows from operating   | 354                       | 722                  | 1,440                | 2,288                | 3,271                |  |  |
| Cash flows from investing   |                           |                      |                      |                      | np a beaf            |  |  |
| Purchase of Long-Term Assets  | <u>0</u>                  | <u>0</u>             | <u>-100</u>          | -300                 | -400                 |  |  |
| Cash flows from financing   |                           |                      | 3521                 |                      | an eshall            |  |  |
| Redemption of long-term loan  | -800                      | -800                 | -800                 | -800                 | -800                 |  |  |
| Profit payout   | 0                         | 0                    | 0                    | -500                 | -1000                |  |  |
| net Cash flows from financing   | <u>-800</u>               | <u>-800</u>          | <u>-800</u>          | -1300                | -1800                |  |  |
| Net increase in cash flows  | <u>-446</u>               | <u>-78</u>           | <u>540</u>           | 688                  | 1,071                |  |  |

In order to conduct an appropriate evaluation, the period of evaluation is extended to 15 years. The net cash flow is projected to increase by 27% and 56% in the fourth and fifth years, respectively, as stated in Table 5. The cash flows are estimated using a 20% rate of growth for the remaining years (i.e., a very conservative rate). NPV at the end of the evaluation period is decidedly positive at a discount factor of 6% (weighted average of cost of capital), which focuses on the cost of equity and the cost of the loan captured by the project as follows (Barrow, 2008):

1000

554

Cash at beginning of year

Cash at end of year

$$WACC = \frac{(E \times RE)}{(E+D)} + \frac{[D \times RD \times (1-TR)]}{(E+D)}$$
 [2]

554

476

476

1,016

1016

1,704

1704

2.775

Where E = market value of equity; RE = return required for equity; D = market value of debt; RD = return required for debt; and TR = tax rate. Within the tax-free environment, the above equation can be restated as follows:

$$=0.0627WACC = \frac{\left[\frac{4600\times\left(\frac{300}{4600}\right)}{(4600+4000)} + \frac{\left[4000\times.06\times(1-0)\right]}{(4600+4000)}}{(4600+4000)}$$
[3]

The second technique used to evaluate the project is the internal rate of return (IRR). As noted above, the cash flows are uneven, and a trial-and-error process may be used to find the internal rate of return that will result in a zero NPV. The trial-and-error process is carried out using spreadsheets (Holden, ND); the calculated IRR is about 13.656%, which is very promising—almost double the weighted average of cost of capital.

Finally, the payback period determines the length of time that the project will take to recover its initial cost from the net cash inflows that it generates (Ehrhardt & Brigham, 2011). The technique reveals that the project can be expected to recover the initial investment within eight years and three months, whereas this period increased to 10 years and 10 months when we use the discounted payback period. These periods are very promising when compared to similar business activity in the UAE environment. The recommendation is to invest in this proposal, since all the analysis techniques suggest that it will be successful.

#### **CONCLUSIONS**

- The current paper provides an initial feasibility study for setting up a private school in Al Ain, UAE.
- The UAE economy has a promising investment climate, along with a relatively high income per capita.

- The number of classrooms and students is growing faster than the number of schools. For this reason, there is a
  demand for new schools.
- The project is expected to achieve a negative net income in the first year; however, this will become positive
  with a growing trend in subsequent years. The project will provide positive cash flows from the third year of
  business activities.
- The NPV is decidedly positive at a discount rate of 6%. The internal rate of return is about 13%, which is very promising at almost twice of the weighted average of cost of capital. The discounted payback period will be around 10 years, which is quite short when compared to similar business activity in the UAE environment.

### RECOMMENDATIONS

- It is recommended that the proposal for Al Ain School be accepted, since all the analysis techniques suggest that
  it will be successful.
- Once the proposal has been initially accepted, a detailed feasibility study should be conducted for the school.
- The UAE market can absorb new schools. It is advised that investors invest in the profitable education sector.
- The feasibility study can be improved in further research by providing investment risk analyses such as a breakeven analysis and decision trees.

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