



# BAHRIA UNIVERSITY (Karachi Campus)

Department of Software Engineering

Assignment 02 – FALL 2024

Entrepreneurship (HSS-421)

CLO:01

## Group Activity

**Start Date:** 01-Nov-2024

**End/Deadline:** 30-Nov-2024

### CASE STUDY GOLFGAMEZ (B): FUNDING A DIGITAL STARTUP

**Question 01:** What questions face MacTavish? And how would you prioritize these problems?

**Question 02:** When considering the crowdfunding option for Golfgamez, what marketing efforts would be required to attract a large base of supporters, and how would offering free versions of the app to these supporters impact the company's future revenue?

**Question 03:** How could the Scientific Research & Experimental Development (SR&ED) tax credit and other Canadian government funding programs benefit the Golfgamez initiative, and what are the eligibility criteria for these programs?

**Question 04:** What options did MacTavish consider for equity funding for Golfgamez, and what was his strategy for compensating a local software developer and a marketing manager?

(5x1.25= 05 Marks)

## **GOLFGAMEZ (B): FUNDING A DIGITAL STARTUP**

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*Professor Derrick Neufeld wrote this case solely to provide material for class discussion. The author does not intend to illustrate either effective or ineffective handling of a managerial situation. The author may have disguised certain names and other identifying information to protect confidentiality.*

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Cal MacTavish had spent the past week discussing his digital start-up project with trusted friends, colleagues and potential investors. He was now considering an array of funding possibilities.

### **DEBT FUNDING**

Golfgamez could be funded with debt. Between his savings, retirement account and remortgaging the equity in his condo, MacTavish was somewhat surprised to find that he could quickly pull together \$180,000 to loan to the business. Moreover, his parents had offered to co-sign a bank loan for up to \$240,000.

However, MacTavish was troubled by both of these approaches. First, making a personal loan would wipe out his net worth. This he would be willing to do, except that it would preclude him from quitting his job in order to focus on the new start-up (i.e., if he gave up his banking job and started working on Golfgamez full time, he would have to immediately start drawing a salary, which could create an overwhelming financial burden on the new company). Second, he was uncomfortable with his parents co-signing for a bank loan. They were now in their mid-fifties, comfortable but by no means wealthy, and they had been planning to retire from their careers in the next few years. While their deep faith in his business acumen was encouraging, he did not want to do anything to put their financial future in jeopardy.

### **EQUITY FUNDING**

Equity financing possibilities were intriguing and seemed to come down to three options. First, a group of family and friends (MacTavish's brother, a college buddy and a good friend from the bank) had proposed to provide \$300,000 in funding in return for a 30 per cent stake (i.e., \$100,000 each, for 10 per cent each of common shares). Second, a retired executive that whom MacTavish had recently met and golfed with a few times had floated an informal offer of \$250,000 for a 20 per cent stake, with a 10 per cent royalty repayment from income (i.e., until the principal was fully repaid). Third, three professors from

MacTavish's former business school who had formed an angel investing group had expressed interest in funding the venture; they would offer up to \$150,000 for a 10 per cent stake, with a 20 per cent royalty from income to repay the principal.

Again, important questions lurked behind each of these options for MacTavish. What did each of the offers say about the implied valuation of the company? Should he get into a business relationship with family members and friends, or would this risk damaging important relationships? On the flip side, was it safe to tie himself to someone like the retired executive, who was a relative unknown? (On reflection, MacTavish recalled that the fellow had a tendency to not count all his strokes on the golf course and that he seemed easily irritated by other players.) Plus, of course, selling off a chunk of his business was unsettling, while paying a 10 or 20 per cent royalty could significantly reduce early stage cash flow.

## ACCELERATOR FUNDING

Accelerator funding options had become increasingly popular in recent years. For example, Y Combinator was described by *Wired Magazine* as "the tech world's most prestigious program for budding digital entrepreneurs."<sup>1</sup> Candidates accepted into this program typically received \$14,000 in seed funding in exchange for a 6 per cent equity stake, along with an \$80,000 loan that was structured as a convertible bond (i.e., to be converted into common stock at a later date). Entrepreneurs had to locate their start-ups near the Y Combinator headquarters in Silicon Valley, California to receive mentorship and so they could benefit from engaging with the larger community. Once off the ground, introductions would be brokered with serious equity investors; assuming a positive outcome and based on other start-up deals, MacTavish guessed that this would likely lead to an additional \$500,000 in funding, for an equity stake of 30 per cent. Some very successful start-ups, such as Dropbox, scribd, reddit, Airbnb and Posterous, had received Y Combinator funding. And, there were many other accelerator programs, such as Techstars and 500Startups in the United States and MaRS, Mercury and Velocity in Canada.<sup>2</sup>

MacTavish liked the idea of engaging with an accelerator such as Y Combinator as a means of focusing and intensively building a quick "head of steam" for the venture, as well as gaining access to a qualified group of serious investors. On the other hand, he seemed to have ready access to some serious investors (without trying all that hard) — and giving up a 6 per cent stake in return for \$14,000 seemed very expensive.

## CROWDFUNDING

Another possible source of capital might be available in the form of crowdfunding, a term that "describes the collective effort of individuals who network and pool their money, usually via the Internet, to support efforts initiated by other people or organizations."<sup>3</sup> Sites Kickstarter.com and Indigogo.com had popularized the concept in recent years. A review of statistics posted on the Kickstarter website revealed that for technology projects seeking more than \$100,000, the ultimate success rate was 4.2 per cent (i.e., over 95 per cent failed to meet the predefined funding hurdle, and so no dollars were collected).<sup>4</sup> For projects that met the funding hurdle, Kickstarter levied a funding fee of 4 to 5 per cent, as well as a

<sup>1</sup> [http://www.wired.com/magazine/2011/05/ff\\_ycombinator/](http://www.wired.com/magazine/2011/05/ff_ycombinator/), accessed March 28, 2013.

<sup>2</sup> <http://www.techvibes.com/blog/the-comprehensive-list-of-canadian-incubators-and-accelerators-2011-04-13>, accessed March 28, 2013.

<sup>3</sup> <http://oxforddictionaries.com/definition/english/crowdfunding>, accessed April 9, 2013.

<sup>4</sup> <http://www.kickstarter.com/help/stats>, accessed March 28, 2013.

processing fee of 3 to 5 per cent. Funders normally expected something in return for their contribution; in the case of Golfgamez, this would likely involve a free copy of the app.

Not having to give up any equity was, of course, very attractive. On the other hand, MacTavish wondered what kind of marketing effort would be required to attract a large base of supporters. It would probably require a lot more effort to attract 10,000 “investors” at \$10 each than it would be to attract a single \$100,000 investor. And by handing them free versions of the software, wouldn’t Golfgamez be losing out on future revenue?

## GOVERNMENT GRANTS

Dozens of Canadian government funding programs — related to starting a new business, buying or leasing equipment or property, conducting research and development, hiring or training employees and so on — were available.<sup>5</sup> Two seemed particularly relevant to the Golfgamez initiative:

- (1) The Scientific Research & Experimental Development (SR&ED) tax credit: a “federal tax incentive program, administered by the Canada Revenue Agency (CRA), that . . . gives claimants cash refunds and/or tax credits for their expenditures on eligible R&D [research and development] work done in Canada.”<sup>6</sup> This program dispersed approximately \$4 billion in funding per year to Canadian businesses engaged in R&D. From the CRA’s Eligibility Self-Assessment Tool (ESAT)<sup>7</sup> it appeared that Golfgamez likely qualified. Up to 80 per cent of the R&D expenses related to technology development could be eligible for a tax refund and/or cash credit. This could pay most of the cost of the developer’s salary.
- (2) The Industrial Research Assistance Program (IRAP) also looked promising: “The mandate of NRC-IRAP is to stimulate wealth creation for Canada through technological innovation, while its mission is to stimulate innovation in SMEs [small and medium enterprises] in Canada.”<sup>8</sup> The National Research Council of Canada distributed approximately \$1 billion in funding to small and medium-sized Canadian firms every year. IRAP contained several sub-programs; for example, the Accelerated Review Process (ARP) offered \$50,000 in a non-repayable grant.

Consulting firms specializing in navigating the government bureaucracy when applying for these kinds of grants typically charged a fee in the neighbourhood of 10 to 20 per cent of the total grant value.

## LABOUR ALTERNATIVES

Hiring full-time professional employees was an expensive commitment. To delay the cost and risk, MacTavish considered several alternatives. Using a service such as Elance.com or oDesk.com,<sup>9</sup> an onshore (Canadian or U.S.) contract developer would cost approximately \$100 per hour. Based on a conversation with one such developer, MacTavish estimated that the lack of co-location would result in nominal performance degradation along the lines of 10 per cent (i.e., in comparison with a local full-time

<sup>5</sup> See <http://www.canadabusiness.ca/eng/program/search/> to explore Canadian government financing options, accessed March 28, 2013.

<sup>6</sup> <http://www.cra-arc.gc.ca/txcrdt/sred-rsde/menu-eng.html>, accessed March 28, 2013.

<sup>7</sup> The tool is available at <http://www.cra-arc.gc.ca/txcrdt/sred-rsde/ssssmnt/menu-eng.html>, accessed March 28, 2013.

<sup>8</sup> [http://www.nrc-cnrc.gc.ca/eng/about/planning\\_reporting/evaluation/2012\\_2013/irap.html](http://www.nrc-cnrc.gc.ca/eng/about/planning_reporting/evaluation/2012_2013/irap.html), accessed March 28, 2013.

<sup>9</sup> <http://www.ddiy.co/freelance-websites/>, accessed March 28, 2013.

developer). A cheaper option involved contracting an offshore developer for approximately \$50 per hour. However, because of time zone, language and culture barriers, the performance hit would likely be in the range of 35 per cent. A third option was to entice a local software developer to work on the project in exchange for an equity position in the company (i.e., sweat equity). MacTavish thought that such an arrangement could be offered for the marketing manager position as well.

What were the comparative costs and trade-offs for the year for full-time, onshore part-time, offshore part-time and sweat equity partners? If he pursued the sweat equity option, how much was one share worth — and should the transfer be based on a dollar-for-dollar rate, or should a premium or discount conversion rate be applied? The offer had to be significant enough to attract strong talent without giving away the store. MacTavish thought that a 5 per cent equity position should do the trick for the developer and marketing manager positions (i.e., 50,000 common shares of the initial one million share authorization to each position). However, he wanted to tie the share transfer to hours worked.

There were many options, with many uncertainties. MacTavish opened up his spreadsheet and got to work.