

Business management Case study: Medimatters

For use in November 2016

Instructions to candidates

- Case study booklet required for higher level paper 1 and standard level paper 1 business management examinations.

Medimatters

Carlo, Bella, Didi, Emma, Falit and Ahmed studied at the United South American International School in Brazil and eight years ago received their IB Diplomas. They decided to meet up for a reunion in July 2015. While having a conversation, they discovered a desire to put into practice some of their business ideas and theory that they had studied together.

- 5 Carlo, a medical science researcher at a university in Canada, is an inventor by nature. His research has led to a business idea involving the use of smartphones for medical monitoring. His idea is that, with the use of an app and a smartphone camera, insect bites could be analysed. The use of this technology could help with early diagnosis and treatment. Insect bites could be classified as dangerous or not. In addition, the app could communicate with an
- 10 appropriate healthcare professional in the event of a significant health risk.

“I know all about the medical side of this idea, but little to nothing about writing software for the app, nor do I understand marketing,” Carlo said.

Bella said with enthusiasm, “I’m working in IT (information technology) in the United Kingdom (UK) and I write award-winning software for apps. I love a challenge”.

- 15 Didi said, “I can help too. I’ve specialized in management accounting since leaving university”. Didi approaches business matters with caution. He has seen many instances of impatient entrepreneurs rushing good ideas without careful planning.

Emma, a marketing graduate at a public relations office, has always wanted to have a more creative and independent role.

- 20 Falit works in the production planning department of a large multinational oil company. He likes his job but hates the bureaucracy.

Ahmed is a charismatic, self-confident project manager at a construction company.

The group decided that Ahmed was the right person to manage the project and the group because of his management and leadership skills.

- 25 They decided to call the app “IBAT” (insect bite analysis test). Regular online meetings would take place to develop the idea.

- By September 2015, the group agreed that they would go ahead with the business idea in their spare time. They had all talked to friends, relatives and anyone they knew working in healthcare. All of these people liked the idea. The six friends decided to call the business
- 30 *Medimatters*.

IBAT would consist of a paid-for app that, with a smartphone, would:

- take a good quality photograph of the insect bite
- send the photograph to IBAT’s online automated database.

The automated database would then:

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- compare the photo with the online library of scanned images
 - produce a report on the findings of the comparison for the IBAT user as well as, if possible, medical professionals such as doctors.

40 After consultation with some doctors, Carlo discovered a technical problem. The image quality
of smartphones varies. To obtain the necessary detail of the insect bite, a separate magnifying
lens attachment which would convert the smartphone's lens into a microscope would be
required. A different design of lens for each make of smartphone would be required. The
need for a lens means that IBAT would not be a conventional app that is purchased from an
online app store. Customers, who could be members of the public or people in the healthcare
45 profession, would purchase a physical product (the lens) and a password for downloading
the app. IBAT would therefore be a service and a product/good that has implications for both
marketing and operations management.

Ahmed acted decisively. He assigned to each group member tasks to complete within three
months. In January 2016, they met face to face and reported their findings and progress
(Appendix 1).

50 Emma considered who to target. She told the group during a further online meeting that the
best approach to marketing was to concentrate on particular market segments. It would be
easier to focus on healthcare professionals, such as doctors. Emma suggested that the best
approach to contact these potential customers was through conferences and relevant medical
magazines and journals. She was also investigating other potential market segments and
55 distribution channels. Identifying these potential customers was going to be a major challenge
and required market research. Could the general public be targeted through large chains
of shops that sell health-related products? Ahmed thinks that they should concentrate on
launching the product in Brazil before going global, but this might result in competitors copying
the idea in other countries.

60 In many areas the project was going smoothly, but frustrations were beginning to show. Bella
was keen to make a lot of progress quickly. She thought that the project should be launched
as soon as possible and then refined later based on customers' experiences. Didi was clear
that they had to get the product absolutely right before it was launched. He also stated that
Medimatters would need finance in order to start trading. Carlo was worried about where the
65 lenses should be produced. Ahmed has a lot of work to do to sort out these frustrations.

Appendix 1: January 2016 – Group members’ findings and progress

	Group member	Findings and progress
70	Ahmed Project manager	<ul style="list-style-type: none"> • Draft business plan: complete • Potential investors: identified • Application for copyright/patents: in progress • Size of market: unclear, believes that there is huge national and global potential
	Bella IT	<ul style="list-style-type: none"> • Prototype of image-taking software: written and tested • Medical diagnosis software development: in progress
75	Carlo Medical expert	<ul style="list-style-type: none"> • Insect bite images: 75 % collected and catalogued on database • Communication channels with healthcare professionals: no progress • Reporting format for medical diagnosis: some progress • Approval for the use of the app for medical purposes: cannot be granted by health authorities until lens design finalized
80	Didi Accountant	<ul style="list-style-type: none"> • Production costs for app and lens: to be determined • Further financial information for business plan: in progress • Set-up cost: \$60 000
85	Emma Marketing	<ul style="list-style-type: none"> • Market research: no progress, except for discovering a device/app that measures skin colour to help choose cosmetics and another that helps identify skin cancer • List of potential market segments and target markets: complete • Promotion strategies targeting medical profession: ongoing • Marketing plan: in progress
90	Falit Production	<ul style="list-style-type: none"> • Lens production: investigate where to produce the lenses, possible manufacturer identified • Production method: investigate batch or flow
	All of them	<ul style="list-style-type: none"> • Ahmed, Bella and Carlo could each invest \$2000, the others could invest \$1000. \$51 000 extra would need to be found. The list of problems is getting longer!

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