Data Analysis Portfolio

Prepared by:

Professional Background

- ➤ **2013-2017**: Masters Degree in Pharmacy (MPharm) from Aston University, Birmingham.
- ➤ **2017-2019**: Pre-Registration training year; General Pharmaceutical Council & Pharmacy Council of Nigeria Registration.
- ➤ **2019-2021**: Research & Product Analyst at SeamHealth Innovations where I managed the development & deployment of over 7 products for NGOs and health institutions.
- ➤ **2021-2022**: Senior Program Officer- Clinical Trials Pharmacist at Institute of Human Virology Nigeria where I handled confidential patient data in a double-blinded randomized controlled clinical trial for COVID-19 inpatients.
- ➤ **2021-2022**: Co-founded MyChassis; an automobile technology company & was accepted into an incubator programme sponsored by JICA with $8000 in funding.
- ➤ **2022 - Present**: Business Intelligence Associate at Câm managing organization-wide data, business metrics, impact metrics, departmental KPIs and presenting reports to management for decision-making.

To excel in my varied background, I have developed and honed skills in MS Office & G-Suite especially **Excel & Sheets** for Data Analysis, Data visualisation using **Tableau**, Requirements Gathering & Documentation, Task tracking & Project Management software like **Quire, Asana & Trello**, Flowchart & Process flow design software like **LucidChart & Whimsical.**

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UDEMY PROJECT DESCRIPTION

➢ As a data analyst at Udemy, I set out analyse data on course sales and trends to understand patterns and assist management in making smart, data-driven decisions. The results of this analysis will provide management with ways to improve the business model and also increase revenue.

➢ This analysis will provide information on the most popular courses and those that prices can be increased for, as well as what courses marketing and advertising efforts should be tailored towards?

➢ The aim of this report is to help Udemy identify opportunities to increase the next quarterly earnings.

DATA DESIGN

The following questions guided this data analysis project:

1. What are the total numbers of subscribers in each subject?
2. How does the average content duration/price/number of students vary across different subjects?
3. How many courses are free and paid for each subject?
4. What is the average price of web development courses at different levels?
5. What are the 20 most popular courses? Also, include the following information:
   a. Their level
   b. Whether they are free or paid
   c. Whether any are free beginner courses,
   d. and the duration of the courses.
6. Does content duration impact the price of the course?

DATA DESIGN

Methods:

➢ Data on course sales and trends was cleaned and analysed using Google Sheets and visualised using Google Sheets and Tableau to understand patterns and elicit data for evidence-based decision making.

➢ This project focused on analysing data on the following subjects: Web Development, Graphic Design, Business Finance and Musical Instruments.

KEY FINDINGS

The total number of subscribers in the subjects analysed during the course of this project is 11,760,483.

Of this number, **majority of subscribers (67.9%) are subscribed to Web Development courses** making this the most popular subject out of the four.

Subject	Total number of subscribers
Business Finance	1868711
Graphic Design	1063148
Musical Instruments	846689
Web Development	7981935
Grand Total	**11760483**

Table 1

Total number of subscribers per subject

- Business Finance 15.9%
- Graphic Design 9.0%
- Musical Instruments 7.2%
- Web Development 67.9%

Figure 1

Question 2

Average content duration per subject

Figure 2

Average price per subject

Figure 3

Average number of subscribers per subject
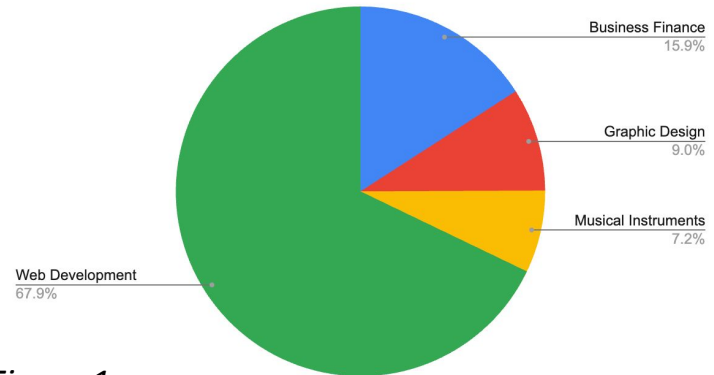
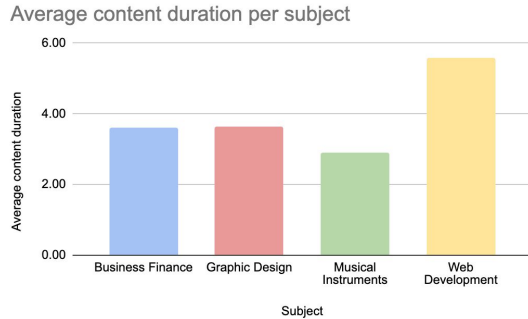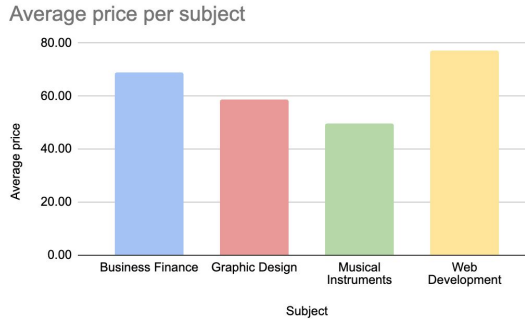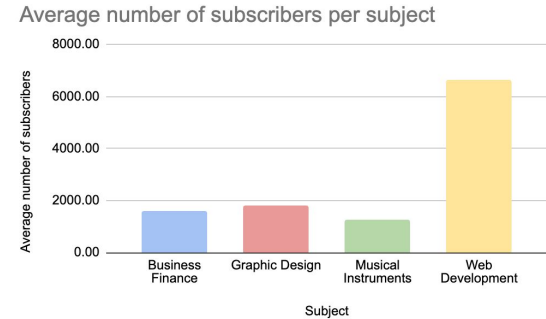*Figure 4*

Similar to the previous finding, **Web Development courses have the longest content** than courses in the other subjects on average.

Web Development courses are also the most expensive on average yet this has no effect on the number of subscribers as we already learned from Question 1.

This means that content duration and price do not have any significant effect on whether people subscribe for a course or not.
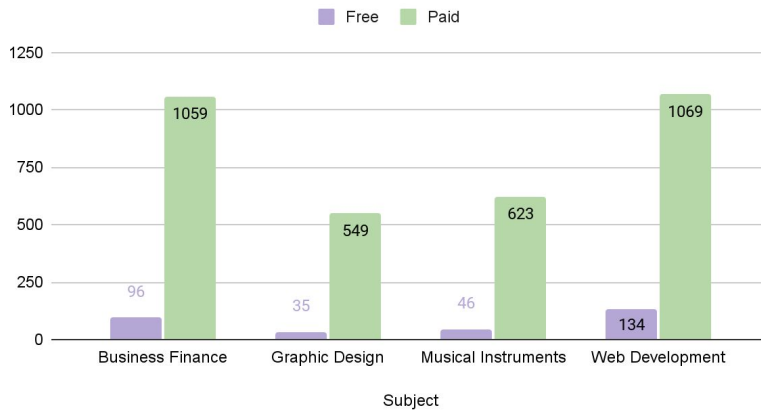
9

Question 3

Figure 5

Free courses are a good customer acquisition strategy as prospective customers can engage with content on the platform and are incentivised to pay for more content.

This holds true for **Web development courses as they have the highest number of free courses** and the highest number of subscribers (from previous findings).

Though, same cannot be said for Business Finance with more free courses but less number of subscribers than Graphic Design.

Question 4

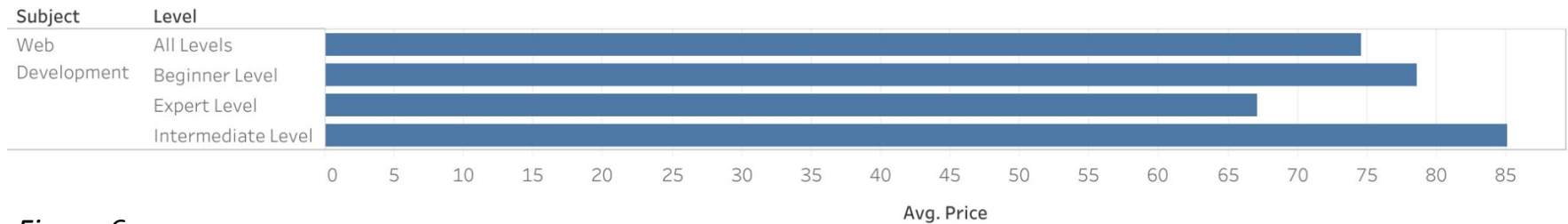| Subject	Level
Web Development	All Levels
	Beginner Level
	Expert Level
	Intermediate Level

Avg. Price

Figure 6

When looking at the average price of Web Development courses across the various levels, we can see that that **Intermediate level courses cost the most on average** followed by Beginner level courses, with expert level courses costing the least on average.

Question 5

Course Title	Level	Free or Paid	Free Beginner course	Content Duration
Learn HTML5 Programming From Scratch	Beginner Level	Free	Yes	10.5
Coding for Entrepreneurs Basic	Expert Level	Free	No	3.5
The Web Developer Bootcamp	Beginner Level	Paid	No	43
Build Your First Website in 1 Week with HTML5 and CSS3	All Levels	Free	Yes	3
The Complete Web Developer Course 2.0	Beginner Level	Paid	No	30.5
Free Beginner Electric Guitar Lessons	All Levels	Free	Yes	4.5
Web Design for Web Developers: Build Beautiful Websites!	All Levels	Free	Yes	3
Learn Javascript & JQuery From Scratch	All Levels	Paid	No	2
Practical PHP: Master the Basics and Code Dynamic Websites	Intermediate Level	Free	No	6.5
JavaScript: Understanding the Weird Parts	All Levels	Paid	No	11.5
Pianoforall - Incredible New Way To Learn Piano & Keyboard	Beginner Level	Paid	No	30
Angular 4 (formerly Angular 2) - The Complete Guide	Beginner Level	Paid	No	22
Beginner Photoshop to HTML5 and CSS3	All Levels	Free	Yes	2
Web Development By Doing: HTML / CSS From Scratch	All Levels	Free	Yes	1
HTML and CSS for Beginners - Build a Website & Launch ONLINE	All Levels	Free	Yes	6
Become a Web Developer from Scratch	All Levels	Paid	No	27.5
Bitcoin or How I Learned to Stop Worrying and Love Crypto	All Levels	Free	Yes	8
Quickstart AngularJS	Beginner Level	Free	Yes	1.5
Learn Responsive Web Development from Scratch	All Levels	Free	Yes	4.5
Learn and Understand AngularJS	Beginner Level	Paid	No	7

From this list of the 20 most subscribed courses, **100% are Web development courses and 65% are free.**

The availability of a Free Beginner Course includes those that are free in All levels.

Content duration also varies from 1-43 hours.

Table 2

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Question 6

There is no correlation between Content Duration and Price when considering all 4 subjects together as most content is under 20 hours but the prices are almost evenly spread out.

Also, taking a look at the data points in orange, they exist within the same content duration bracket but are on opposite ends of the price spectrum with other similar data points scattered in between
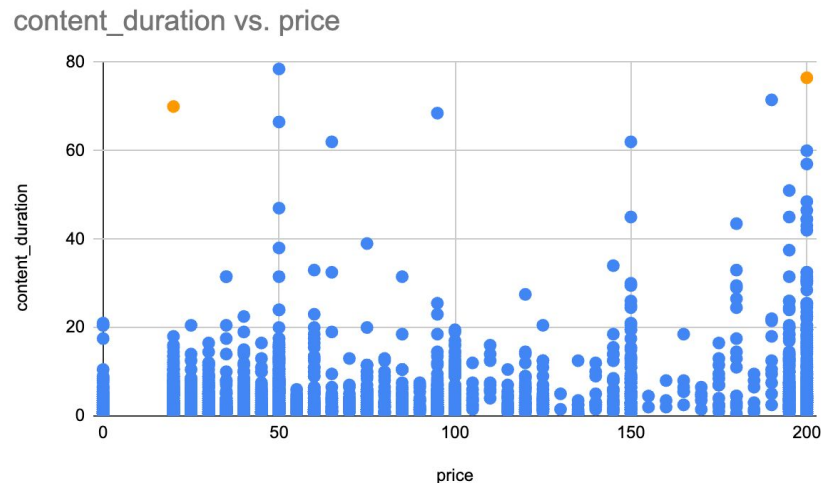

content_duration vs. price

Figure 7

CONCLUSION

➢ Web development is the most popular subject despite having the highest prices on average and the lengthiest content.

➢ This means that beyond length of content and price, there are other factors that are responsible for the popularity of Web development courses.

➢ To increase revenue, prices web development courses can be increased since the interest is there. Marketing and advertising efforts should also be channelled towards promoting those courses.

CAPSTONE PROJECT

CAPSTONE PROJECT DESCRIPTION

➢ As a prospective MBA student, going through the details of different MBA programs and what they offer is an important activity. Like many other MBA prospects, increasing marketability as a professional as well as the quality and quantity of job opportunities are major reasons for undertaking an MBA[1].

➢ The aim of this project is to analyse a Maven Business School Dataset to primarily elicit the employability rate and factors that have any effect on employability.

[1] *Why Get an MBA: Benefits & Advantages | Wharton MBA.* (2020, June 12). MBA Program.
https://mba.wharton.upenn.edu/why-get-an-mba/#:~:text=An%20MBA%20can%20enhance%20your,well%20as%20a%20professional%20network.

DATA DESIGN

The key questions that guided this data analysis project are:

➢ Does having prior work experience have any bearing on being placed in a job?
➢ What undergraduate degree backgrounds do the MBA class have and does that impact their likelihood of being placed?
➢ Students of the MBA class from what undergraduate background are likely to earn more post-MBA?
➢ Compare employability pre- and post- MBA for each undergraduate degree subject to know which graduates are most likely to benefit from an MBA.

DATA DESIGN

To answer the questions above, the original dataset was cleaned to remove blanks.

A total total of 47 records with blanks were removed leaving 1153 records for analysis.

The data set was analysed using Google Sheets and visualised using both Google Sheets and Tableau.

The findings from the analysis are discussed in the following slides.
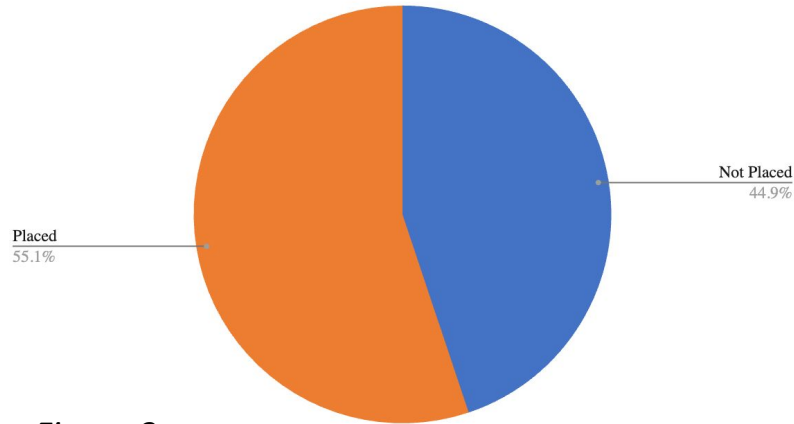
KEY FINDINGS

No Work Experience

Not Placed
44.9%

Placed
55.1%

Figure 8

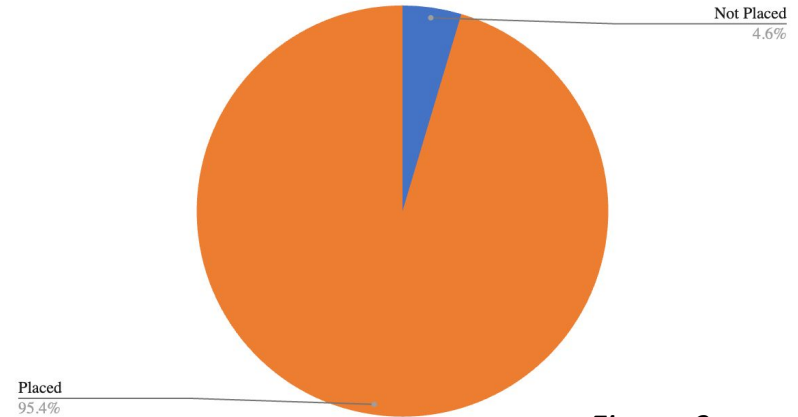Work Experience

Not Placed
4.6%

Placed
95.4%

Figure 9

We can observe that 95.4% of candidates who had pre-MBA work experience were placed in a job post-MBA compared with 55.1% of those with no prior work experience.

Question 2

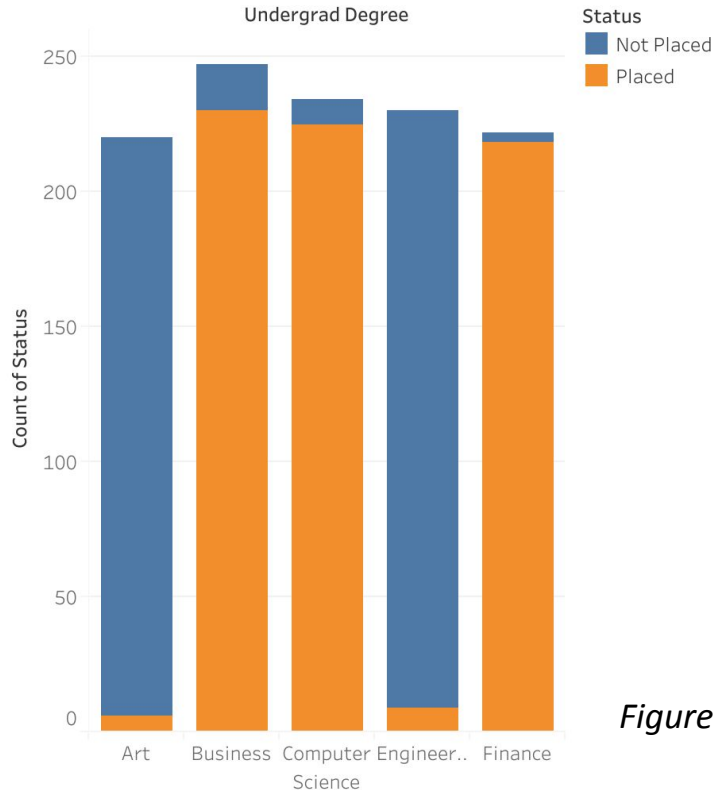

Undergrad Degree

Status
- Not Placed
- Placed

Figure 10

MBA candidates with previous degrees in Business, Computer Science and Finance are more likely to be placed in a job post MBA than those with undergraduate degrees in Art or Engineering.
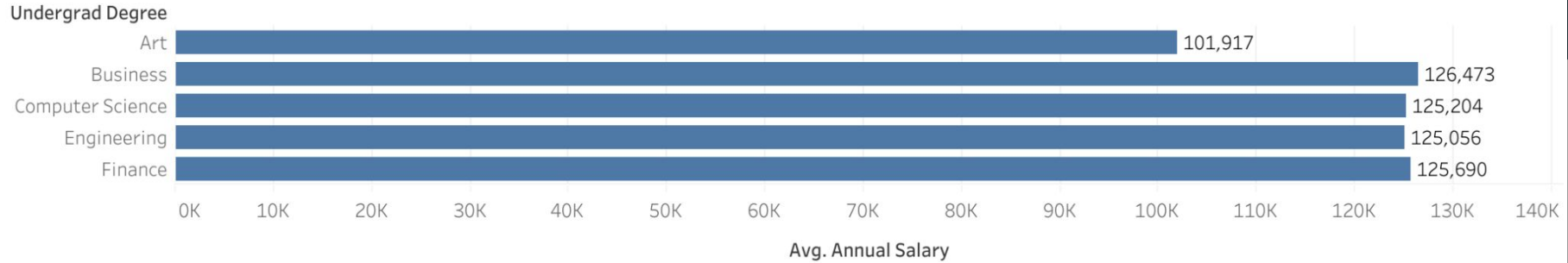
Question 3

Figure 11

When it comes to earnings among those who are placed in a job post-MBA, earnings are within the same bracket between candidates except those with undergraduate degrees in Art that earn considerably less.

Question 4

Figure 12

- ➢ Employability of MBA candidates across all undergraduate degree backgrounds was roughly the same pre-MBA and post-MBA.
- ➢ An MBA at Maven Business school therefore has the same effect on employability on all candidates

SUMMARY OF FINDINGS

➢ To reap the benefit of increased quantity and quality of job opportunities from undertaking an MBA, having prior work experience is important.

➢ Undergraduate degrees subjects of MBA candidates has an impact on their likelihood of getting a job post-MBA.

➢ Asides from candidates with an undergraduate background in Arts, if placed in a job post-MBA, average annual salaries are roughly the same.

➢ An MBA at Maven Business School, boosts its candidates employability equally regardless of their undergraduate background.

CONCLUSION

Actions & Recommendations

➢ MBA prospects should seek to gain a number of years of work experience prior to undertaking an MBA. This will help put learning into context and also provide added value to existing experience and communicate as much to potential employers.

➢ That the data suggests that MBA candidates with undergraduate degrees in Art and Engineering are less likely to be placed in a job post MBA should not be a deterrent to undertaking an MBA. However, having industry experience other measures to boost employability should be employed to increase their chances.

THANK YOU