

# **Market Study: The catalog of Fiverr's Offers**

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# **I. Introduction**

Fiverr is an Israeli online marketplace for freelance services. The company provides a platform for freelancers to offer services to customers worldwide.

Fiverr was founded by Micha Kaufman and Shai Wininger, and was launched in February 2010. The founders came up with the concept of a marketplace that would provide a two-sided platform for people to buy and sell a variety of digital services typically offered by freelance contractors. Services offered on the site include writing, translation, graphic design, video editing and programming. Fiverr's services start at US\$5, and can go up to thousands of dollars with gig extras. Each service offered is called a "gig".

In December 16th 2020, Fiverr announced the results of a survey, conducted in partnership with Censuswide, analyzing U.S. workers who are working remotely or who did so this year and their current sentiment towards remote work and their jobs in 2021. The data set, which looks at 1,035 of these workers, revealed that the current work from home environment is leading to an increase in people's desire to freelance.

View the full release here:

<https://www.businesswire.com/news/home/20201216005256/en/>

We know that a huge amount of people lost their jobs during the Covid crisis and are then searching ways to offer their services in exchange of money. In this perspective Fiverr can be a good way to help people that would like to begin to work as a Freelancer. To help them, we gathered information about what they can offer as a gig on Fiverr and what subcategory of gig is the most rewarding in terms of price.

Let's study which mission is the most profitable to offer as a Fiverr Freelancer.

## II. The Dataset

We'll use a csv file of 6183 rows and 7 columns downloaded from Kaggle ([Kaggle Fiveer File](#)). Each row represents a gig (small service) and each column represents a feature, it does not contain all offers available on Fiverr but only a sample of it.

The main goal behind this notebook is to have a clear overview about the market of Fiverr and to extract the maximum amount of informations and to help everyone who is planning to work with Fiverr in his market study by providing an explained analysis of the available data. This analysis will be founded on descriptive statistics concepts. Mainly I will show how quantitative variables vary in the whole sample first, then how they vary in terms of each label of qualitative or categorical variables.

The quantitative variables in this dataset are:

Unnamed:0

price

Stars

Votes

There are 2 qualitative and categorical variables: The i...Category and the Subcat.

The i...Category gives the name of the major category of offers that a client on Fiverr can ask for. The Subcat is the Subcategories of Categories on Fiverr.

The initial cvs file turned into a dataset look like this:

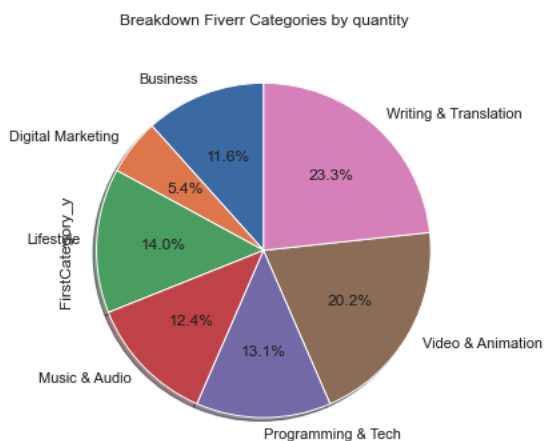
Unnamed: 0		Category	Subcat	name	price	stars	votes
0	1	Programming & Tech	Data Analysis & Reports	build automated and insightful power bi report	137.76	5.0	10
1	2	Lifestyle	Greeting Cards & Videos	get kermit to personalize a video birthday gre...	4.44	5.0	1k+
2	3	Programming & Tech	Website Builders & CMS	build or redesign your existing squarespace we...	66.66	5.0	68
3	4	Lifestyle	Cooking Lessons	create original eastern food cooking video recipe	17.78	4.9	5
4	5	Writing & Translation	Legal Writing	write gdpr privacy policy and terms and condit...	8.89	5.0	2
...	...	...	...	...	...	...	...
6178	6179	Video & Animation	Animated GIFs	do unique motion graphics video and animated gif	39.99	4.8	41
6179	6180	Business	Market Research	compare your business with its competitors	355.51	4.9	4
6180	6181	Writing & Translation	Transcripts	accurately transcribe audio and video files	8.89	5.0	15
6181	6182	Lifestyle	Cooking Lessons	film high quality cooking video	62.21	5.0	8
6182	6183	Lifestyle	Cooking Lessons	give 1100 cooking HQ videos for social media	4.44	4.8	9

6183 rows × 7 columns

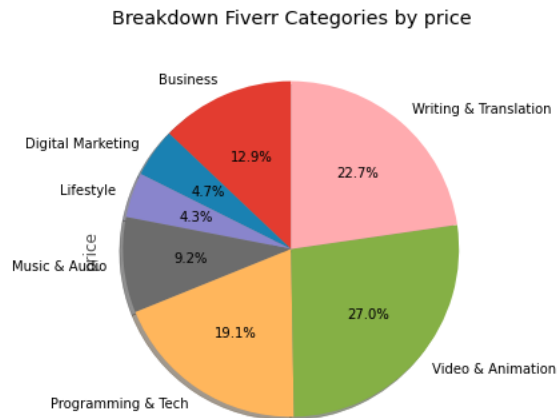
### III. Methodology Section

We are going to group the dataset by the Fiverr categories to understand which categories is the most profitable in term of price if you are looking for offering your services on the application and in terms of quantity of services that you can expect to receive if you are a company looking for a freelance to help you on a mission. For this create a pie diagram is the most accurate as it gives you the share of each Categories comparatively to all the others in Fiverr.

```
In [29]: 1 df_subcat1['FirstCategory_y'].plot(kind='pie',
2         figsize=(5, 6),
3         autopct='%1.1f%%', # add in percentages
4         startangle=90, # start angle 90° (Africa)
5         shadow=True, # add shadow
6     )
7
8 plt.title('Breakdown Fiverr Categories by quantity')
9 plt.axis('equal') # Sets the pie chart to look like a circle.
10 plt.show()
11
12
```



```
In [16]: 1 df_subcat1['price'].plot(kind='pie',
2           figsize=(5, 6),
3           autopct='%1.1f%%', # add in percentages
4           startangle=90, # start angle 90° (Africa)
5           shadow=True, # add shadow
6         )
7 plt.title('Breakdown Fiverr Categories by price')
8 plt.axis('equal') # Sets the pie chart to look like a circle.
9 plt.show()
```



Then we will focus ourselves on the subcategories and search which subcategories is the most rewarding for a Freelance and so the more costly for the company.

We decided to calcul the mean of the Price and the quantity of each subcategories in Fiverr to get the average price asked for each subcategory.

```

: 1 #Get the mean of the average of price by subcategory
2 df_subcat_updated['mean'] = df_subcat_updated['price']/df_subcat_updated['Qty']
3 df_subcat_updated = df_subcat_updated.sort_values('mean', ascending=False)
4 df_subcat_updated.reset_index(level=0, inplace=True)
5 df_subcat_updated

```

	Subcat	Count	price	Qty	mean
0	Cybersecurity & Data ProtectionNew	126923	9680.174	39	248.209590
1	Local PhotographyBeta	141529	9109.332	48	189.777750
2	E-Commerce Development	173859	8924.433	48	185.925687
3	Website Builders & CMS	127245	8087.870	48	168.497292
4	Whiteboard & Animated Explainers	166032	7342.283	48	152.964229
...	...	...	...	...	...
124	Subtitles & Captions	139687	448.730	48	9.348542
125	Transcripts	151657	422.100	48	8.793750
126	Traveling	137447	368.750	48	7.682292
127	Collectibles	154742	324.330	48	6.756875
128	Article to VideoNew	139103	302.070	48	6.293125

129 rows x 5 columns

Then, we created a histogram of the 50 first rewarding subcategories in Fiverr but to be sure about the relevance of our calculation we used and tested our model with a regression model.



```
In [26]: 1 #R2 is a statistic that will give some information about the goodness of fit of a model.
2 #In regression, the R2 coefficient of determination is a statistical measure of how well the regression predictions
3 #An R2 of 1 indicates that the regression predictions perfectly fit the data
4 #Fit a linear regression model to predict the 'price' using the feature 'sqft_living' then calculate the R^2.
5 #Take a screenshot of your code and the value of the R^2
6 X = df_updateSub50[['mean']]
7 Y = df_updateSub50['price']
8 lm = LinearRegression()
9 lm.fit(X,Y)
10 lm.score(X, Y)
```

Out[26]: 0.978356171709423

```
In [27]: 1 #Import the necessary modules:
2 from sklearn.model_selection import cross_val_score
3 from sklearn.model_selection import train_test_split
4 print("done")
```

done

```
In [28]: 1 #We will split the data into training and testing sets
2 features = ['mean','Qty']
3 X = df_updateSub50[features]
4 Y = df_updateSub50['price']
5
6 x_train, x_test, y_train, y_test = train_test_split(X, Y, test_size=0.15, random_state=1)
7
8
9 print("number of test samples:", x_test.shape[0])
10 print("number of training samples:",x_train.shape[0])
```

number of test samples: 8  
number of training samples: 42

```
In [29]: 1 #Create and fit a Ridge regression object using the training data, set the regularization parameter to 0.1, and cal
2 from sklearn.linear_model import Ridge
```

```
In [30]: 1 RigeModel=Ridge(alpha=0.1)
2 RigeModel.fit(x_train, y_train)
3 RigeModel.score(x_test, y_test)
```

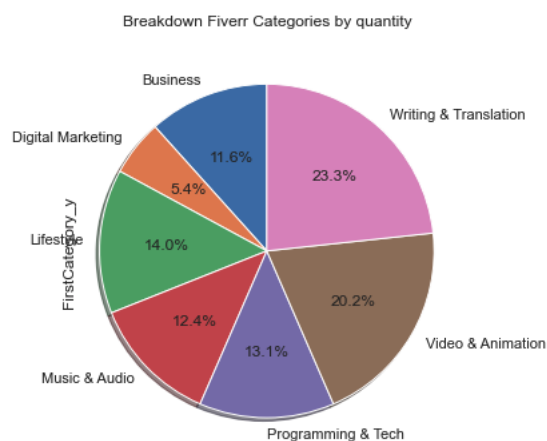
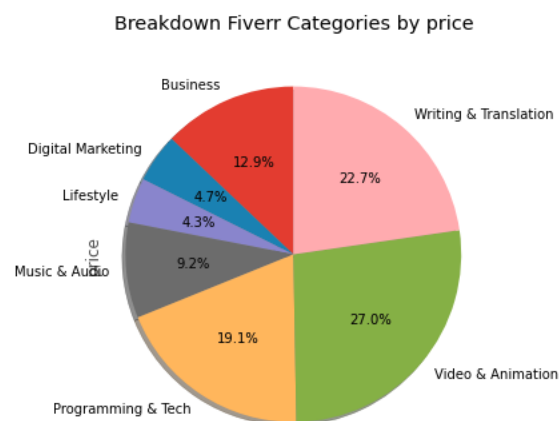
Out[30]: 0.9999999350888501

## IV. Result Section

We were looking for the most expensive missions/offers.

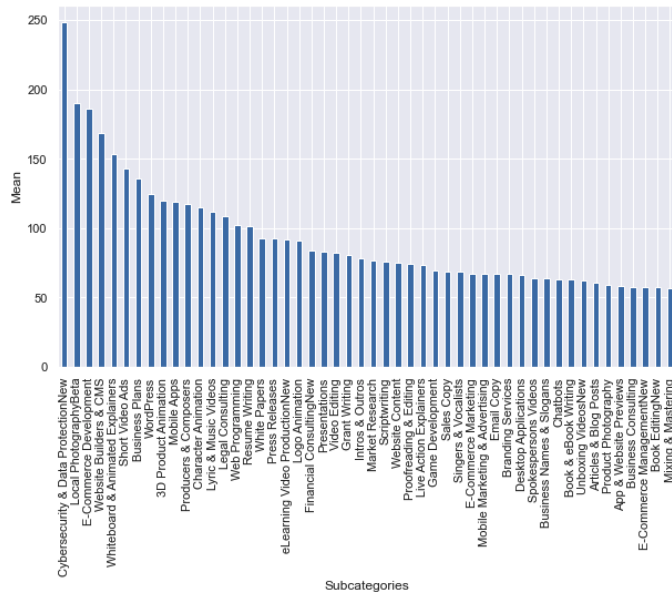
For this we first made a study of the share of each Fiverr Categories in price and in quantity. It came out that writing & Translation (23.3%), Video & animation (20.2%) and Lifestyle is (14%) are the biggest categories in quantities of mission offered.

But in term of price Video & animation comes first with 27.0%, then writing & Translation is just behind with 22.7% and finally we find Programming and Tech with 19.1% .



Then we took a sample of the 50 most expensive to help freelancer make their choice among the priciest missions. Please find the title and the mean for each category.

```
In [28]: 1 # step 2: plot data by sorting it decreasingly
2 df_updateSub50 = df_updateSub50.groupby('Subcat', axis=0).sum()
3 df_updateSub50 = df_updateSub50.sort_values('mean', ascending=False)
4 df_updateSub50['mean'].plot(kind='bar', figsize=(10, 6))
5 plt.xlabel('Subcategories') # add to x-label to the plot
6 plt.ylabel('Mean') # add y-label to the plot plt.title('Icelandic immigrants to Canada from 1980 to 2013') # add ti
7 plt.show()
```



The first 50 subcategories listed on the histograms can be played an average of \$50 to \$250 the mission.

## **V. Conclusion**

Overall, the most rewarding categories are Writing & Translation, Video and Animation as well as Programming and Tech because they are part of the most profitable category but also the one with the higher quantity of demand.

Freelancer skilled in the subcategories of Cybersecurity & Data protection New, Local Photography Beta, Ecommerce development, Website Builders & CMS, Whiteboard animated, Short videos ads and business plans, WordPress 3D Product animation and Mobile app are the first 10<sup>th</sup> profitable category in Fiveer.

## **VI. References and acknowledgement section.**

Kaggle Website: <https://www.kaggle.com/kirilspiridonov/freelancers-offers-on-fiverr>