**Portfolio 2**

The increased competition in the digital market in UK is the biggest challenge Small and Medium Enterprises (SMEs) are experiencing, thus it is significant to understand how SMEs can maintain a stronger competitive advantage and higher sharpness. To achieve this, four main statistical variables have been realized: total online sales, digital marketing investment or expenditure, Return on Investment and number of established SMEs.

First of all, digital marketing expenditure or investments variable is important to understand as it gives insight into the resources available to SMEs and how this resources should be utilized. Also, digital marketing expenditure or investments variable can offer valuable information on the marketing strategy for a company’s effectiveness and how this strategy can be improved. Secondly, there is SMEs Return on Investment (ROI) or revenue variable. This variable is useful in understanding the marketing efforts of SMEs and determining if the expenditure made is worth the return. The third variable is total online sales. This variable indicates the total amount of sales which have been generated through the digital channels. In particular, this variable is of significant in understanding the success of an SME’s strategy of digital marketing. The fourth and last variable is the total count of established SMEs. This variable is important since it can provide an idea of how the digital market is competitive. Thus by doing this, it provides an insight into the level of competition challenging the SMEs.

For the purpose of collecting the data for the above discussed variables, a good potential source of this kind of data would be World Bank (Bank., 2019). World Bank is a reliable data source which gives a comprehensive quantitative data on a wide range of topics and countries (Bank., 2019). Nevertheless, World Bank may not provide data that is specific to UK. This might be problematic as the current research is focused on the UK.

Once data collection is done, the same data will be analyzed by a standard linear regression analysis. Standard linear regression analysis is used because of its merit that standard linear regression analysis allows the exploration of the correlation between the variables realized and also, it helps in the realization of any outliers in the data (Al-Hakim & Pizzi, 2016). Standard linear regression analysis gives an easy and simple way to examine the effect of each variable later on the overall outcome. Nevertheless, it should be noted that linear regression analysis has some limitations. Linear regression analysis is limited in a manner that it makes an assumption that the data follows a normal distribution and that the relationships between the variables are linear. Simply, this means that any relationships between the variables that is non-linear may not be taken into account. Additionally, linear regression analysis may not be suitable when it comes to for analyzing datasets with a high degree of variability or datasets that comes in large quantity.

**References**

Al-Hakim, L. & Pizzi, N., 2016. A review of using linear regression analysis.. *International Journal of Medical Informatics, 93, ,* pp. 39-45..

Bank., W., 2019. *World Bank Open Data..* [Online]   
Available at: https://data.worldbank.org/