**MVP Description**

Minimum viable product (MVP) is the main focus of both on SMEs Data System and development of Mobile-app system for SMEs. We will explore ﬁve early stage software startups to understand how MVP are used in early stages. Data will be collected from EU annual structural business statistics and member states statistics center. We will look at the MVP usage from two angles, software prototyping and boundary spanning theory. We found that roles of MVPs in startups were not fully aware by entrepreneurs. Besides supporting validated learning, MVPs are used to facilitate product design, to bridge communication gaps and to facilitate cost-effective product development activities. Entrepreneurs should consider a systematic approach to fully explore the value of MVP, as a multiple facet product (MFP). The work also implies several research directions about prototyping practices and patterns in software development

**Target Population**

The focus of the project is SMEs most especially the developing countries in the EU but also will of significance to government agencies, investor, start-ups etc.

**Overview of SMEs, Investment Needs**

World bank data shows the SMEs account for the majority of businesses worldwide and are important contributors to job creation and global economic development. They represent about 90% of businesses and more than 50% of employment worldwide. SMEs contribute up to 40% of national income (GDP) in emerging economies with unmet financing needs of over $5.2 trillion. However, there’s huge investment needs for SMEs due to the lack of access to financing in the capital market. In Europe, SMEs present more than 99% of all European non-financial corporates and employ over 90 million people, accounting for almost 70% of total employment in the EU-28 non-financial sector. They also generate close to 60% of total gross value added.

However, the specific characteristics of SMEs make them more vulnerable during crises (Chowdhury 2011[1]): Because they are often not rated, their sources of financing can diminish faster than those of larger companies. Moreover, since they tend to produce highly specific products, they are less flexible in adapting to crises. In 2009, SMEs were the first to suffer from the global economic crisis because of depressed demand and financing constraints.

Since European SMEs depend on banks for 70% of their external financing (against around 40% in the US), any gaps between loan demand and supply could lead to lower investment growth, which could be a constraint on overall economic growth in the future.

**Beneficial Outcomes**

SMEs specific investment needs will be identified, financial support will be allocated for efficiency and fair distribution to specific industry, end-users (SMEs) can update their details and status regularly through the Mobile App. Thus, having Data system and Mobile-based system. SMEs financing gap will be reduced, access to market and growth will be improved

**Functionality**

For the first phase, SMEs data system will be built that will take a form of data consolidation for all member states on the EU structural business statistics, this system analysis will consider beyond SBS standard, the system will have status categorization, risk clustering, investment needs identifier, crisis code and financing gap code which can point an SME in a particular industry and country to a specific financial support in certain crisis or situation like the Covid-19. Phase 2, is the decentralizing the data system in to Mobile-App development system where by SMEs at the convenience can update their details and status at any location and then the Phase 1 data system get updated daily. One advantage is that, SMEs status and financing needs could be known daily, data could be received daily instead of the annual SBS etc.

**Challenges/Limitations**

Some of the limitation could national level internal policies on SMEs and funding

**Potential Opportunity**

This is the time to find a robust solution to the SMEs financing gap by using a data system that swiftly identify SMEs investment needs in comprehensive Mobile-App system and point to specific financial support in crisis like this. As the EU envision for the integration of SMEs dimension in to EU policies, then a decentralized system (Mobile App system) can help in emergency situation and also to improve the SMEs access to the market.

**Data on SMEs**

The data will be taking from the EU’s annual structural business statistics (SBS) and a national level quarterly statistics office including wide level of activity classification beyond the standard SBS variables (number of enterprises, turnover, persons employed, value added etc.)

**Literature References**

European SMEs: Filling the bank financing gap <https://www.eulerhermes.com/en_global/economic-research/insights/European-SMEs-Filling-the-bank-financing-gap.html>

European Commission: Internal Market, Industry, Entrepreneurship and SMEs <https://ec.europa.eu/growth/smes/business-friendly-environment/regional-policies/>

# Small and Medium Enterprises (SMEs) Finance

<https://www.worldbank.org/en/topic/smefinance>

Minimum Viable Product or Multiple Facet Product?

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