**Employment Stata Regression Exercise**

**Methodology**

* Employment ranges relevant to a cluster/state are marked as ‘1’ for that location, marked ‘0’ otherwise.
* The independent variables of funding of Pre-Seed – Seed (PSSFS), Early Stage (ESFS), Late Stage (LSFS), Acquired (AFS), Public (IPOFS), Deadpooled (DFS) are computed as a share of total funding from all categories of funding in a given location total.
* Regulatory Sandbox Funding (RSFS) is computed as a share of the national total funding for sandbox firms in UK.
* Only clusters with total startups more than 5 are considered, leading to a total of 12 locations in India and 14 locations in UK.
* Employment tabs are created for each location, corresponding to the size of each company. A total of 5 tabs are created, with an average number of employees assigned for each tab. The list of tabs and corresponding average employees is provided below.

|  |  |
| --- | --- |
| **Employment Tab** | **Average # of Employees** |
| 0-10 Employees | 5 |
| 11-50 Employees | 30 |
| 51-250 Employees | 150 |
| 251-1,000 Employees | 625 |
| 1,001-10,000 Employees | 5,500 |
| 10,000+ Employees | 12,000 |

**Regression Equation**

India Equation

ESi = β(AAY) + β(PSSFS) + β(ESFS) + β(LSFS) + β(AFS) + β(IPOFS) + β(DFS) + β(RSFS) + β1L1(PSSFS1)(EFS1)(LFS1) β2L1(AFS1) + β3L1(RSFS1) + …. + β1L12(PSSFS12)(EFS12)(LFS12) β2L12(AFS12) + β3L12(RSFS12) + c

UK Equation

ESi = β(AAY) + β(PSSFS) + β(ESFS) + β(LSFS) + β(AFS) + β(IPOFS) + β(DFS) + β(RSFS) + β1L1(PSSFS1)(EFS1)(LFS1) β2L1(AFS1) + β3L1(RSFS1) + …. + β1L14(PSSFS14)(EFS14)(LFS14) β2L14(AFS14) + β3L14(RSFS14) + c

Where:

ES = Employment Share

PSSFS = Pre-Seed/Seed Funding Share

EFS = Early-Stage Funding Share

LFS = Late-Stage Funding Share

AFS = Acquired Funding Share

IPOFS = IPO Funding Share

DFS = Deadpooled Funding Share

RSFS = Regulatory Sandbox Funding Share

**Results**

India

* When assessed for FinTech funding variables independently, there is no significance for any of the funding stages and employment contribution.
* There is positive coefficient and significance for Regulatory Sandbox funding share and its impact on employment in India.
* When assessing for states using interaction, Pre-Seed/Seed, Early-Stage and Late-Stage Funding are clubbed together.
* We find large states like Karnataka, Maharashtra, Tamil Nadu to have positive coefficients and significance for various funding stages.
* Suggests that for these states, FinTech startups receiving Pre-Seed/Seed, Early Stage, Late Stage, Acquisition or IPO funding boosts employment.
* Shows a positive impact of government-led investment in FinTech growth in these states (Bangalore, Gurgaon, Mumbai).

UK

* When assessed for FinTech funding variables independently, there is significance only for the Public (IPO) with a positive coefficient.
* In the UK interaction regression, we find (as expected) London to have positive coefficients and significance for Pre-Seed/Seed, Early-Stage & Late-Stage Funding, as well as Acquisition Funding.
* Other clusters with high coefficients of funding are Scotland (Edinburgh/Glasgow), The Pennines (Manchester/Leeds/Sheffield) and Bristol/Bath though no significance in any of these.