## ABID REHMAN, PH.D.

Resaerch Fellow (PIDE)

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#### Research and Education

### Ph.D. Economics, National University of Sciences and Technology, 2016 - April-2022.

**PhD Dissertation Topic:** "Housing, Travel Demand and Associated Cost Nexus for Residential Locational Choice (RLC) of Tenant Households"

Dissertation comprises of four separate chapters that cover all possible trade-offs, and social, economic and behavioral aspects that are necessary to empirically verify for bottom-up or inclusive policy making for short-term, mid-term and long-terms. The main objective of the entire study is to investigate housing and travel demand and associated costs of tenant households based on the residential location choice in Rawalpindi and Islamabad, Pakistan.

- Investigated the study topic literature through bibliometric analysis on WOS and Scopus dataset by using VOS-Viewer to answer the overall need for clarity required for the researchers regarding theoretical framework, research design, and empirical methodologies.
- Performed time series urban growth analysis (2000-2020) for Rawalpindi and Islamabad on Satellite Imagery through remote sensing by using QGIS.
- Estimated the **housing demand, travel demand, commuting cost, and rent functions** based on RLC by using GLS model on **Stata-14 statistical package** at a multiscale level across the different cities' structures, income groups, and family structures.
- The study suggest that the housing and transport policies at city, provincial and federal level should consider the
  concerns of different income groups and family structure, and should be evidence based accounting for the
  commuting and housing preferences of individuals households.
- Among others, the most important message for the policymakers to control the traffic and urban sprawl issues for all sects of society through a key initiative to shift from irrational and horizontal urban growth to vertical expension.
   By doing so, unwanted but necessary development spending for infrastructure development and transportation can be wisely avoided.
- Won two international research fellowships for the Ph.D to University of Cambridge UK and Asian Institute of Technology, Thailand. Four research publications (published and under review) as the first author in prestigious international journals from Ph.D. research work.
- Developed research network across universities in UK, Netherlands and Singapore and on three collaborative research projects in the pipeline.

### M.Phil. Economics, Pakistan Institute of Development Economics, 2013-2015

**Dissertation Topic:** How mixed use of land (MUL) in large cities of Pakistan impacts on reduction in commuting and congestion cost by a case study of Islamabad.

- Identify the seven indices that measure MUL for commercial and residential purposes from literature.
- Did Monte Carlo simulations for data generation in R-Software and find Pearson spearman's correlation among those indices and conducted in-depth interviews with **300** participants for the case study.

#### B.S., Mathematics, International Islamic University, Islamabad, 2009-13.

### Research Experience

## Research Fellow, at Pakistan Institute of Development Economics, Pakistan from August 2022 – Onward

Working on the project which investigate the hurdles to the development of vibrant rental market in Pakistan. Moreover, why Pakistani's always want to have their own home? Why not they don't prefer inveting that amount in to alternative investment sources and live as an tenats for lifetime?

# • <u>Visiting Researcher</u> and Member, Lab of Interdisciplinary Analysis (LISA), Department of Land Economy, University of Cambridge, UK from January 2020 – August 2020.

I joined the lab of Elisabete A. Silva and worked on three research articles including a review paper with the focus travel and housing demand functions of those tenants based on Residential Location Choice (RLC) of tenants' households. In the first article we investigates the housing and travel demand for the tenants based on RLC at city, income levels, and family structures. In the second article, we build a hypothesis that how does transportation and housing Costs Affected by Residential Location choice of Tenants in Rawalpindi and Islamabad, Pakistan. Morover, I attended a full term course on Spatial Analysis and Modelling on Dynamic simulation models, at Department of Land Economy, University of Cambridge, UK and full module on Agent Base Modelling with Net logo at Department of Geography, University of Cambridge, UK.

## Research Assistant and Field Supervisor, In an Adaptation Finance Fellowship Programme (AFFP) implemented by Frankfurt School and Thailand Development Research Institute (TDRI), From June- September 2020.

Worked on the Farmers' climate adaptation and forest conservation study based on choice modeling approach in Haripur District, KP Pakistan. Assisted Principle Investigator in literature review and data collection and survey supervision. I have also trained the enumerators for households' survey data collection in addition to the survey supervision at District Haripur Pakistan

# • Research Assistant, at Center for Policy and Management Islamabad, Pakistan, from October 2014- August 2016.

Worked on the Climate change project "Household Level Farmers Flood Adaptation Measures in Nowshera District, KP Pakistan" sponsored by *South Asian Network for Development and Environmental Economics (SANDEE)*. Assisted Principle Investigator in literature review and data collection and survey supervision. I have also trained the enumerators for households' survey data collection in addition to the survey supervision at District Haripur Pakistan.

### International Research Fellowships and Awards

2020	Research exchange fellowship of 9500 GBf, to by HEC, University of Cambridge, UK
2018	Grant of 2000 US\$ for the research and training workshop, International Centre for Integrated
	Mountain Development (ICIMOD), Galle, Sri Lanka.
2018	Grant of 3500 US\$ for three weeks of Summer school by SANDEE & ICIMOD, Asian
	Institute of Technology, Thailand.
2018	Travel grant for 600 US\$ for International Conference on "Central Asian Regional Economic
	Integration and CPEC, Applied Economic Research Center (AERC), Karachi.
2017-19	Funding of 10,000 US\$ from Higher Education Commission of Pakistan (HEC) for conducting
	in-depth spatial surveys, National University of sciences and Technology, Islamabad.
2016	Recipient of travel grant for 300 US\$ for International Conference on "11th seminar on urban
	and regional Planning, organized by NED University, Karachi.
2013-15	Merit Scholarship of Full Fee Wavier during MPhil in Economics at Pakistan Institute of
	Development Economics.
2009-13	Merit Scholarship of Full Fee Wavier during BS in Mathematics at International Islamic
	University, Islamabad, Pakistan

## **Professional Courses and Trainings**

Jan-March, 2020	Spatial Analysis and Dynamic simulation models, <b>Department of Land Economy</b> , <b>University</b>
	of Cambridge, UK
Feb-March, 2020	Agent Base Modeling with Net-logo, <b>Department of Geography, University of Cambridge.</b>
11th March, 2020	Map your postdoc Journey Now, Student Services Centre, University of Cambridge.
10th March, 2020	Preparing to write your Thesis, Student Services Centre, University of Cambridge.
5th March, 2020	How to Peer-Review Research Papers Student Services Centre, University of Cambridge.
19th Feb, 2020	Managing your Time and Digital Productivity, Economic and Social Research Council
	Doctoral Training Partnership, University of Cambridge.
14th Feb, 2020	The seven secrets of highly successful PhD students, Student Services Centre, University of
	Cambridge.
14th Feb, 2020	Managing your digital information Department of Land Economy, University of Cambridge.
09-14 June, 2018	Workshop on Environmental and Resource Economics Organized by International Centre
<i>3</i> ,	for Integrated Mountain Development (ICIMOD) at Galle, Sri Lanka.
April-May 2018	Summer School on Environmental and Resource Economics Asian Institute of Technology,
,	Thailand, covering overarching training theme for young PhD researchers form South Asia.

## Policy Writings & Media Appearances

	Toney writings & Mee	na rippearances
2021	Can Developing Countries like Pakistan	Published for South Asian Center, London School
	Successfully Finance SDG 2030?	of Economics and Political Science (LSE), UK.
2021	<u>Urban Mobility Paradigm</u>	Published in The Express Tribune
2021	Housing Policy Lessons for Pakistan	Published in The Express Tribune
2021	What is the future of Karachi?	Published in The Express Tribune
2020	Coronavirus and Mental health	Published in The Daily Times
2020	Is our Tax system Fair enough	Published in The Daily Times
2019	Pakistan Foreign Reserves and Debt Crisis	Published for South Asian Center, London School
		of Economics and Political Science (LSE), UK.
2019	Focus on Inflows!	Published in The Express Tribune
2019	Have amnesty Schemes Worked Ever?	Published in The Express Tribune
2019	Corporate Tax Evasion	Published in The Express Tribune
2019	Tax System Efficiency	Published in The Express Tribune
2019	Fiscal Incentives for SEZs	Published in The Express Tribune
2019	Academia-Industry Linkage	Published in The Express Tribune
2018	If Imran Khan wants lower infant mortality, he	Published for South Asian Center, London School
	should Maldives and Sri Lanka inspiration	of Economics and Political Science (LSE), UK.
2018	Research Blocks	Published in Dawn Newspaper
2018	Real Estate Tax Shelter	Published in The Express Tribune
2018	Doubling the tax revenue with current polices	Published in The Express Tribune
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## **Experience in Data Collection**

June-Aug, 2019	Enumerators training;	Collected spatial data of 995 tenant's households through a coded	
	survey/questionnaire	questionnaire that collect information about socioeconomic	
	design and supervision	characteristics, housing characteristics and urban amenities, and travel	
		use and transport access in Rawalpindi and Islamabad, for my Ph.D.	
		research funded by HEC.	

April-May, 2019 Enumerators training and survey supervision

Collected **spatial data** of **500 households** on the Farmers' climate adaptation and forest conservation study based on choice modeling approach in Haripur District, KP, funded by Frankfurt School and Thailand Development Research Institute (TDRI).

Nov-Dec, 2015 Enumerators training and survey supervision

Collected **spatial data** of **500 households** on the Farmers' climate adaptation and forest conservation study based on choice modeling approach in Haripur District, KP, funded by Frankfurt School and Thailand Development Research Institute (TDRI).

Collected data of **500 farmer households** on Household Level Farmers Flood Adaptation Measures in Nowshera, Pakistan fund by South Asian Network for Development and Environmental Economics.

### **Experience in Statistical Analysis**

Qualitative Questionnaire Design and Coding

In-Depth Interviews and Focus group discussion Recruiting and Training Team for Survey Quality control and Survey Supervision

Quantitative Data Management in Microsoft Excel

Exploratory data analysis in Microsoft Excel and Tableau

Crossectional Regression Analysis in STATA Time series Regression Analysis in E-Views Land use classification and Heatmaps in QGIS.

Bibliometric Analysis in VOS-Viewer Monte Carlo Simulation In R Software

Development of Mathematical Models and Indices

### University Teaching Experience

Spring 2022	Public Sector Economics (UG)	National Defnse University, Islamabad
Fall 2021	Urban Economics (UG)	National University of Sciences and Technology
Spring 2021	Money and Banking (UG)	Bahria University, Islamabad
Spring 2021-Fall 2019	Applied Statistics & Urban Economics (UG)	National University of Sciences and
	Environmental Economics (UG)	Technology
	International Finance (UG)	
Fall 2019-Fall 2017	Mathematical Economics (UG)	National University of Modern
	Taxation Economics (UG)	Languages.
	Applied Econometrics (UG)	
	Taxation Economics (UG)	
	Labor Econmoics (UG)	
Spring 2015	Urban Economics (UG)	Federal Urdu University of Sciences
		and Technology.
*UG= undergraduate		

### Relevent publications

2021	Abid Rehman and Faisal Jamil "Impact of Urban Residential Location Choice on Housing,
	Travel Demands and Associated Costs: Comparative Analysis with Empirical Evidence from
	Pakistan" in the Transportation Research Interdisciplinary Perspectives 10(2).
2021	Abid Rehman, Faisal Jamil "A multiscale Analysis of housing demand for Tenants seen
	through theories of locational choice in Rawalpindi and Islamabad, Pakistan" published in
	the conference proceeding of 35th AGM, IMSciences Peshawar.

August,	2022

2021	Abid Rehman, Faisal Jamil & Elisabete A. Silva "How Public Transport Modes Availability
2021	Affects the Commuting Cost and House Rent of Tenant's Households in Rawalpindi and
	Islamabad? " at 1st International Conference, CBER IBA
2018	Abid Rehman, A comparison of Infant Mortality Rates between Pakistan and rest of the
	World published in conference proceedings of 6th Peradeniya International Economics
	Research Symposium at <i>University of Peradeniya, Sri Lanka</i> .
2016	Abid Rehman, Zahid Asghar, Institutional Policy Reforms for Urban Land Use Planning:
	Mixed Use of Land in Big cities of Pakistan and its Impact on Reduction in commuting and
	Congestion Cost published in Journal of Research in Architecture and Planning volume 21, pp 78-92
	Publications in Peer-reviewed Journals (Under Review)
2022	· · · · · · · · · · · · · · · · · · ·
2022	Abid Rehman, Subodh Dubey and Prateek Bansal "Residential Location and Dwelling Unit
	Preferences of Tenants: A Tale of Two Cities in Pakistan" submitted to 16th International
2022	Conference on Travel Behaviour Research, IATBR2022.
2022	<b>Abid Rehman</b> , Shahzad. M. Naeem Nawazand Shahzad Alvi "Is it the behaviour and actions of people that determine sustainable urban communities?" under review in the
	Sustainable Production and Consumption.
2022	Shahzad. M. Naeem Nawaz, Shahzad Alvi and <b>Abid Rehman</b> "How Do Beliefs And
2022	Attitudes Of People Influence Energy Conservation Behavior In Pakistan? "under review
	in the Heliyon.
2022	Abid Rehman, Shahzad. M. Naeem Nawaz, Shahzad Alvi "How energy security
	preferences are affected by energy conservation behavior, socioeconomic characteristics and
	urban choices in Pakistan" under review in the utilities policy.
2022	Shahzad Alvi , Abid Rehman, Shahzad. M. Naeem Nawaz "Effects of Socioeconomic
	Characteristics, Intra and Intergenerational Preferences on Water, Food and Energy Saving
	Behaviors in Pakistan." under review in the Humanities and Social Sciences Communications.
2021	Abid Rehman, Faisal Jamil and Elisabete A. Silva "How does Transportation and Housing
	Costs Affected by Residential Location choice of Tenants in Rawalpindi and Islamabad,
	Pakistan?" under review in the <i>Transport policy</i> .
2021	Abid Rehman, Faisal Jamil, Elisabete A. Silva "A Multiscale Analysis of Travel Demand of
	Tenants Affected by the Residential Location Choice in Rawalpindi and Islamabad,
	Pakistan" Submitted to the Case studies on Transport policy.

## References

Dr. <u>Faisal Jamil</u>	Prof. Elisabete A. Silva
PhD Supervisor (Local)	PhD Supervsior (Host)
Associate Professor, Department of Economics,	Director, Lab of Interdisciplinary Spatial Analysis
NUST, Pakistan( <u>faisal.jamil@s3h.nust.edu.pk</u> )	University of Cambridge, UK (es424@cam.ac.uk)

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Assistant Professor, Department of Civil Engineering,	Economist, National Tarriff Comission, Ministry of
National University of Singapore,(parteekb@nus.edu.sg)	Commerce and Trade, PK (shahzada145@gmail.com)