OPPORTUNITY MATCHING FOR SMALL BUSINESSES AND COMMUNITIES:
FINDINGS FROM NATIONAL VIRTUAL FOCUS GROUPS

NORTH CENTRAL REGIONAL CENTER FOR RURAL DEVELOPMENT WEBINAR
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RESEARCH PROBLEM & SIGNIFICANCE

- RURAL COMMUNITIES AND COUNTIES HAVE STRUGGLED TO IDENTIFY APPROPRIATE BUSINESSES AND ECONOMIC DRIVERS, IN THE FACE OF AGRICULTURAL AND DEMOGRAPHIC CHANGE.
- EXTENSION AND ECONOMIC DEVELOPMENT RESEARCHERS HAVE BEEN CHALLENGED TO PROVIDE VIABLE SOLUTIONS TO THIS PROBLEM.
- PUBLICLY AVAILABLE DATASETS FOR SMALL COMMUNITIES PRESENT DATA SUPPRESSION ISSUES THAT LIMIT THE ABILITY TO IDENTIFY ECONOMIC OPPORTUNITIES.
- WE PROVIDE AN OVERVIEW OF A 3 YEAR PROJECT AND PRESENT INITIAL FINDINGS FROM NATIONAL FOCUS GROUPS OF BUSINESS ASSISTANCE PROFESSIONALS ON FACTORS THOUGHT TO BE MOST IMPORTANT TO RURAL BUSINESS SURVIVAL AND GROWTH.

LITERATURE REVIEW

- A COMMONLY USED TOOL FOR THIS RESEARCH IS DEMAND THRESHOLD ANALYSIS.
- THE “DEMAND THRESHOLD” IS DEFINED AS THE MINIMUM MARKET SIZE REQUIRED TO SUPPORT A PARTICULAR TYPE OF RETAIL OR SERVICE BUSINESS AND STILL YIELD A RATE OF RETURN AND REMAIN IN OPERATION.

THEORETICAL FRAMEWORKS

Coding system:
B: Built capital
F: Financial capital
P: Political capital
S: Social capital
H: Human capital
C: Cultural capital
N: Natural capital

Central Place Theory...
- functional importance of places
- Range & Threshold
- Sphere of influence
- functional hierarchies

The areas within the black dots shows the sphere of influence (trading area) of the largest settlements
METHODS: VIRTUAL FOCUS GROUPS

• RECRUITMENT OF PARTICIPANTS: EXTENSION, ECONOMIC DEVELOPMENT, AND BUSINESS ASSISTANCE PROFESSIONALS

• SERIES OF 12 INTERVIEW QUESTIONS BY INDUSTRY SECTOR, INCLUDING: HOME BASED, RETAIL, MANUFACTURING, AGRICULTURE, TOURISM, SERVICES

• DATA COLLECTION – VIRTUAL FOCUS GROUP PROCESS (LOVERIDGE, NAWYN & SZYMECKO, 2013).

• ADOBE CONNECT USED TO DISPLAY POWERPOINT & POLLS

• CONFERENCE CALL – RECORDED AUDIO

METHODS: DATA ANALYSIS

• FOCUS GROUP RECORDINGS WERE TRANSCRIBED AND IMPORTED INTO MAXQDA QUALITATIVE SOFTWARE FOR DATA ANALYSIS.

• FIRST CYCLE CODING EMPLOYED DESCRIPTIVE CODES TO INITIALLY SUMMARIZE SEGMENTS OF EACH TRANSCRIPT INTO TOPICS; ALLOWED FOR DATA EXPLORATION (SALDANA, 2016; MILES & HUBERMAN, 2014).

• CODED SEGMENTS WERE FURTHER ANALYZED IN MAXQDA TO IDENTIFY MAJOR THEMES AND RELEVANT SUPPORTING QUOTES.
## POLITICAL CAPITAL

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CULTURAL CAPITAL

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<td>Family</td>
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<td>Values</td>
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<td>Pays well</td>
<td>8</td>
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COMMON THEMES ACROSS INDUSTRIES

CHALLENGES
- BROADBAND (Built),
- INFRASTRUCTURE (Built),
- WORKFORCE (Human)

SUCCESS FACTORS
- OWNER CHARACTERISTICS (Human),
- NATURAL RESOURCES (Natural)

RURAL BUSINESS

SOCIAL INVOLVEMENT
- COMMUNITY INVOLVEMENT (Social),
- INFORMAL NETWORKS (Social)

FINANCING
- AVAILABILITY (Financial),
- ACCESS (Financial),
- MANAGEMENT (Financial)
HOME BASED BUSINESS: FOCUS GROUP THEMES

**CAPITAL ACCESS & BUSINESS GROWTH**
- BANKS (Financial)
- CREDIT CARDS (Financial)
- TAXES & REGULATIONS (Political)

**FAMILY**
- LABOR (Human)
- FINANCIAL SUPPORT (Financial)
- CUSTOMERS (Social)
- OTHER SUPPORT (Cultural)

**INFORMAL NETWORKS**
- OTHER BUSINESSES (Social)
- OWNERS (Social)
- FRIENDS (Social)
- FAMILY (Social)

**BUSINESS GROWTH & FORMAL NETWORK ASSISTANCE**
- EXTENSION, SBDC
- CHAMBERS OF COMMERCE (Social)

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RETAIL BUSINESS: FOCUS GROUP THEMES

**COMPETITIVE CHALLENGES & MARKET CHANGE**
- BROADBAND (Built), INFRASTRUCTURE (Built), COMPETITION

**SOCIAL INVOLVEMENT**
- COMMUNITY INVOLVEMENT (Social), INFORMAL NETWORKS (Social)

**BUSINESS SUCCESS FACTORS**
- OWNER CHARACTERISTICS (Human)
- UNIQUE PRODUCTS

**EXPERIENTIAL OFFERINGS**
- NOSTALGIC, AUTHENTIC, UNIQUE

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MANUFACTURING BUSINESS: FOCUS GROUP THEMES

**INFRASTRUCTURE**
- BROADBAND (Built),
- ACCESS TO TRANSPORTATION (Built)

**EMPLOYMENT**
- AVAILABILITY (Human),
- DRUG TEST (Human)

**BUSINESS SUCCESS FACTORS**
- EMBEDDED IN COMMUNITY (Social),
- LEADERSHIP (Human)

**CHALLENGES**
- INFORMAL NETWORKS (Social)

MANUFACTURING BUSINESS

**CHALLENGES**
- BROADBAND AVAILABILITY CONTINUES TO BE A CHALLENGE, ALTHOUGH HOW IT HINDERS BUSINESSES DIFFERED BETWEEN SECTORS
- GAPS EXIST IN PROVIDING FINANCING FOR LOANS LESS THAN $20-$50K
- BUSINESS IN RURAL COMMUNITIES CONTINUE TO FACE WORKFORCE CHALLENGES

**SUCCESS FACTORS**
- OWNER’S CHARACTERISTICS PLAY IMPORTANT ROLE IN BUSINESS SUCCESS
- COMMUNITY INVOLVEMENT IS IMPORTANT TO RURAL BUSINESSES
- BUSINESS ASSISTANCE PROVIDERS SEE INFORMAL NETWORKS AS VITAL

SUMMARY CONCLUSIONS FOCUS GROUPS
METHODS

PHASE 2: DEVELOPMENT OF PREDICTIVE MODELS USING BIG DATA

• USING NON-PUBLIC DATA, WE WILL USE ECONOMETRIC METHODS TO EXAMINE THE BUSINESS MAKEUP OF EVERY RURAL COMMUNITY IN THE UNITED STATES AND, IN TURN, USE THAT DATA TO INFORM RURAL DECISION MAKERS OF POSSIBLE OPPORTUNITIES AND THREATS FOR ENTREPRENEURS IN THEIR AREA.

• MODELS WILL EMPLOY MILLIONS OF OBSERVATIONS DEVELOPED USING LIMITED-ACCESS DATA SETS ONLY AVAILABLE THROUGH THE FEDERAL STATISTICAL RESEARCH DATA CENTER SYSTEM.

METHOD: VARIABLE SELECTION PROCESS

Focus Group → Focus coding & analysis → Variable discussion

Reflection → Preliminary data exploration
DATA VARIABLES

Independent Variables – Retail Sector

<table>
<thead>
<tr>
<th>Internet Service Providers</th>
<th>Percent of public land</th>
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</thead>
<tbody>
<tr>
<td>Social Capital Index</td>
<td>Percent of opioid related deaths</td>
</tr>
<tr>
<td>Community Colleges</td>
<td>Percent who work out of county</td>
</tr>
<tr>
<td>Native American Reservations</td>
<td>Percent who work at home</td>
</tr>
<tr>
<td>Military Bases, Factories, etc.</td>
<td>Sales &amp; property tax rates</td>
</tr>
<tr>
<td>Time to NPS asset</td>
<td>Demographic controls</td>
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<tr>
<td>Historical Sites</td>
<td>Number of establishments in 10 other NAICS sectors</td>
</tr>
<tr>
<td>Natural amenities scale</td>
<td>12 geographic regions</td>
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</table>

METHODS: FOCUS GROUPS TO FOCUSED OUTCOMES

Focus Groups
- Limited internet access
- Available stores
- Labor restrictions

Variables Selected
- Number of ISPs
- Number of establishments by sector
- % who work out of county
- % with college degree
- Share of opioid related deaths

Modeling
- Microdata: Employers vs. Non-employers
- Data generation processes:
  - Count distributions
  - Zero inflation
- # of establishments vs. # of employees

Outcomes
- Key variables of influence for specific sectors
- Identification of areas with opportunities in a specific industry
- Different support for employers and non-employers
NEXT STEPS: MODELING PROCESS

• ESTIMATE ZERO INFLATION MODELS FOR MOST INDUSTRIES USING THE NUMBER OF ESTABLISHMENTS PER COUNTY
  • ZERO INFLATION MODELS DECOMPOSE ESTABLISHMENT LOCATION DECISION PROCESS INTO TWO STEPS: (1) CHOICE OF FIRM TO LOCATE AN ESTABLISHMENT IN A COUNTY, AND (2), CHOICE OF NUMBER OF ESTABLISHMENTS IN THAT COUNTY.
  • COMPARE THESE RESULTS TO PAST STUDIES TO ASSESS BIAS IN THRESHOLD RESEARCH RESULTING FROM EXCLUSION OF NON-EMPLOYERS AND FROM AGGREGATING DISSIMILAR INDUSTRIES.
  • ESTIMATE MODELS AGAIN, BUT USE THE EMPLOYMENT AND PAYROLL UNDER EACH PARTICULAR INDUSTRY, RATHER THAN THE NUMBER OF ESTABLISHMENTS, TO MORE ACCURATELY MEASURE SIZE OF THAT INDUSTRY.
  • COMPARE ESTIMATES WITH THOSE DERIVED USING EMSI/IMPLAN OR OTHER PAID SUBSCRIPTION DATA.

IMPLICATIONS

• SUPPORT ECONOMIC GROWTH BY FOCUSING BUSINESS DEVELOPMENT EFFORTS ON INDUSTRIES WITH A HIGH PROBABILITY OF SUCCESS IN THE LOCAL AREA.
  • OUTPUTS WILL HIGHLIGHT TYPES OF BUSINESSES LIKELY TO BE SUCCESSFUL IN A PARTICULAR AREA, BUT ALSO HELP IDENTIFY CURRENT BUSINESSES THAT MIGHT BE AT RISK, FACILITATING RETENTION/DIVERSIFICATION EFFORTS.
NEXT STEPS

• QUANTITATIVE AND QUALITATIVE MANUSCRIPTS FOR PUBLICATION IN ACADEMIC JOURNALS
• EXTENSION DIGITAL PUBLICATIONS AND ONLINE BUSINESS ASSISTANCE MATERIALS
• PROGRAMMING INPUT FOR EXTENSION, COMMUNITIES OF PRACTICE

THANK YOU

ANY QUESTIONS?

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