



# **SEGMENTING SMES: NET ZERO OPPORTUNITIES AND CHALLENGES FOR UK BAKERY ENTREPRENEURS**

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# WHY RESEARCH SMES?

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Big gap between SME energy and emissions and the path to netzero

EEMs available and often economic – but mostly not taken up

Existing policy not very effective

Absence of qualitative research to understand complexity of small enterprise world.

Why SME bakeries?



Notes: SME=Small & medium sized enterprise

EEM = Energy efficiency measures (EEMs) are defined as strategies (technical or social) that either, allow the enterprise to produce the same output for less energy input, or to produce the same output at a lower energy cost, i.e. using cheaper energy.

# MANAGEMENT OF ENERGY LITERATURE

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## **Does not explain small enterprise energy use**

Neoclassical market failures and barriers seen as main stop on EEM investment (DECC 2012) particularly:

- Information related;
- Externalities;
- Principal agent problem
- Access to finance

...but standard remedies not working for SMEs (Janda 2014)(Fawcett and Hampton 2020)



DECC (2012). Factors influencing energy behaviours and decision-making in the non-domestic sector

Janda, K. B., et al. (2014). Learning from the “data poor”: Energy management in understudied organizations, Property Investment and Finance

Fawcett, T. and S. Hampton (2020). Why & how energy efficiency policy should address SMEs, Energy Policy

# NEW INSIGHTS FROM THEORY

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## **Economic sociology has inspired broader approaches:**

- “...the interpenetration of different spheres of social life...Beliefs, social structure, culture, power relations, and other noneconomic considerations are often imbricated in energy decisions...” (Biggart and Lutzenhiser 2007)

## **But insights from entrepreneurial theory not yet applied significantly to management of energy**

The entrepreneur is often synonymous with the small enterprise – their “individual characteristics” play a key role (Schumpeter 1983)

Biggart, N. W. and L. Lutzenhiser(2007). Economic Sociology and the Social Problem of Energy Inefficiency.

Schumpeter, J. A. (1983). The theory of economic development : an inquiry into profits, capital, credit, interest, and the business cycle

# QUALITATIVE METHODOLOGY

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In depth semi-structured interviews and participation sessions unpack the complexities of small enterprise life and energy use.

Thematic analysis (reflexive) to interpret the research material, (ideal for complex qualitative evidence and does not require a particular theoretical approach (Braun and Clarke 2021)).



Braun, V. and V. Clarke (2021). "Conceptual and design thinking for thematic analysis." Qualitative Psychology.

# WHAT IS BEING REVEALED? – SOCIO-ECONOMIC THEMES

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The entrepreneurs have different objectives and styles, even in the same sub-sector

- Craft or business; second career or food industry lifer; social climber or sticker; most enjoy innovating!

Attitudes to peer communities vary:

- Source of sound advice or imposing unwelcome traditions?

Local community:

- respect from local residents/shoppers is energising
- preferences for fresh bread in the morning drive night-work

Family values?

- None want their children to take over, investment follows a cycle of: start-up, expansion, contraction, sale.



# WHAT IS BEING REVEALED? –TECH & FINANCE

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## Energy performance:

- Data not shared by manufacturers of equipment
- No metering of individual items of equipment
- Retro-fit of better insulation would improve oven performance

## Energy Demand & Supply

- Electricity is the main fuel
- Renewable energy measures more exciting than energy efficiency

## Finance

- Hostile to bank finance, but paradoxically happy with Government guaranteed loans, equipment-supplier credit and car loan arrangements

# CONCLUSIONS

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Should support networks be better tailored?

- E.g a simplified Climate Change Agreement?

Could small enterprise equipment be independently energy rated?

Are incentives for off-peak sharp enough?

SME entrepreneurs are local leaders – mainstays for levelling up and bringing through diverse new talent – are they recognised?

Categorising by business cycle point and entrepreneurial characteristics may be fruitful



A UK Climate Change Agreement is a voluntary collective energy efficiency or GHG mitigation plan in return for a 90% reduction in the Climate Change Levy (CCL is paid by those enterprises with energy use above 1MWh per month (electricity))



# FINAL REMARKS

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Q – examples of measuring entrepreneurial characteristics in a survey instrument?

Thanks for taking part

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