**Informal entrepreneurship and the circular economy in Hungary: entrepreneurial practices of Roma communities**

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**Abstract**

Roma communities in the CEE (Central and Eastern Europe) region are generally associated with living and working in socio-economically marginalized conditions. The CEE region moreover possesses a substantial informal economy within which Roma largely conduct entrepreneurial activities. This paper outlines a conceptual approach to examine entrepreneurial practices of a Roma communities dealing in municipal waste collection. Rationale is set against a background of theoretical and empirical debate on the relative desirability of formalization of such activities. As such a conceptual foundation for theoretical consideration of Roma entrepreneurial activities is established which can be generalized for application to similar informal entrepreneurial contexts elsewhere. Set against a wider contextual background of environmental sustainability encapsulated in the ‘circular economy’ it is postulated that Roma waste collection practices are beneficial to society as a whole but also that environmentally unsafe disposal of unmarketable products is socially harmful. The prime theoretical implication is that efforts to formalize Roma entrepreneurial activities may be undesirable in relation to the overall socio-economic benefit they provide. In practical terms, the study aims to provide indicators for incorporation of Roma informal entrepreneurial activities into circular economy policy objectives.

**Keywords:** Informal Entrepreneurship, Circular Economy, CEE Region, Roma Communities, Municipal Waste Collection.

**Introduction**

The informal economy is widely acknowledged as a prime means of providing economic livelihoods for relatively poor communities on a global scale. It is generally accepted that it is more prevalent in relatively poorer countries and regions (i.e, Autio and Fu, 2015; Laing, van Stel and Storey, 2021, Horodnic et al, 2021). The immense scale of the informal economy is illustrated by estimations that it may account for two-thirds of all enterprises globally and employment of approximately 60 per cent of the world’s working population (Williams and Oz-Yalaman, 2021). The informal economy in the CEE region forming the geographical context for this study has largely emerged during the past three decades of socio-economic ‘transition’ to free market economic status. Transition has however also entailed socio-economic marginalization of individuals who are predominantly but not exclusively drawn from Roma communities.

Against this background entrepreneurship as a means of income generation in poor communities is conducted on an informal as opposed to a formal basis. Informal entrepreneurship as such is widely publicly perceived as synonymous with illegal or criminal activity. However, a distinction may be drawn between illegal and informal entrepreneurship in that the latter form may for example involve trade in legally available products and services, albeit subject to sporadic declaration of transactions for taxation purposes (Webb *et al*, 2009; Williams and Kayaoglu, 2020). Debate also prominently features categorization into opportunity and necessity oriented forms of informal entrepreneurship (i.e, Fuentelsaz, González and Maicas, 2018; Spicer and Ault, 2018; Audretsch *et al,* 2021). In terms of public perception Roma are commonly characterized as engaging in necessity-oriented informal entrepreneurship. Necessity orientation may thus be borne of desperate living conditions wherefrom outputs of informal entrepreneurship may be popularly perceived as providing little or no societal value. However the act of entrepreneurship entails a value proposition which may be framed in either social or market based terms. Hence informal entrepreneurship constructs, whether opportunity or necessity driven, may also incorporate tacit use of social and market value propositions which are almost exclusively associated with formal entrepreneurial contexts.

The situational context for this study where Roma informal entrepreneurial actors engage in municipal waste collection activities is also set against a wider global context of environmental sustainability. Environmental issues thus continually assume ever higher priority in terms of overall global public consciousness. This aspect is associated with the relatively recent emergence of ‘circular economy’ models as opposed to more traditional linear models (i.e. Centobelli *et al,* 2021; Kunz, Mayers, and Van Wassenhove, 2018; Manea *et al,* 2021). The circular economy essentially emphasizes enhanced use of renewable physical resources and the minimization of non-productive negative externalities. While Roma informal waste collection activities may perhaps be considered as negligible in terms of their overall quantitative contribution to operations of circular economy principles, it may be argued they may be environmentally beneficial in terms of enhancing overall social value. In this regard Roma informal entrepreneurship may be seen as tacitly conforming to principles of social entrepreneurship even if participants do not perceive their activities may enhance overall social well being.

Social entrepreneurship had gained credence in recent decades both as a conceptual entity and in terms of application. While this is largely due to the increased prominence of social issues in terms of public consciousness, its emergence is also arguably associated with greater emphasis placed on private enterprises than governmental organizations to address them (Grimes et al, 2013; Lamy, 2019). A social value proposition incorporates agency theory in that social enterprises may create social value for various stakeholder groups (Hlady‐Rispal and Servantie, 2018). However, the implicit assumption that social value is prioritized over market value may be questioned in a circular economy context when tangible products may acquire marketable value (Lamy, 2019). This aspect bears resonance with informal waste collection activities in that social enterprises may conduct activities on a ‘community’ basis entailing the inter-community development of social capital (Lumpkin, Bacq and Pidduck, 2018).

Social capital formation may be broadly described as the creation of business value through communication of mutual benefit to individuals (Napathiet and Ghoshal, 1998). This does not preclude its formation in informal entrepreneurial contexts whereby social construction theory (Granovetter, 1985) facilitates development of social capital ties between individuals to generate overall communal advantage. In this regard social capital formation may be manifested in ethnic contexts whereby its parameters are framed in relation to cultural cognitive institutions specific to a particular ethnic group. Studies have been conducted to this effect notably in African contexts ( i.e. Anyidoho and Steel, 2016; Berrou and Gondard-Delcroix, 2018) whereby patterns of communication between informal street traders in single ethnic groups have been examined in relation to price setting practices. Roma communities are also noted for possessing specific cultural identities (i.e. Roditi-Rowlands, 2002; Gille, 2007) thus it can be argued they possess similar social capital formation characteristics.

While there has been extensive development of social entrepreneurship theory it has almost entirely been conceptualized and applied in formal entrepreneurial contexts. Given the immensity of the global scale of the informal economy as outlined by Williams and Oz-Yalaman (2021), and increasing application of circular economy principles, a research gap arises in terms of examination of informal entrepreneurship as a means of social value creation. This paper therefore has the aim of outlining a basis for *conducting processual examination of informal entrepreneurial practices of Roma communities.* Ethnographic research is currently ongoing and is conducted on a pilot basis given that to our knowledge no notable research projects of this specific nature have been applied in the CEE region to this point. The paper also has specific research objectives derived from the aim as follows:-

* *Examination of social capital formation practices in relation to entrepreneurial activities.*
* *Examination of social value creation through entrepreneurial activities.*

This paper proceeds by outlining the conceptual framework to guide enquiry, featuring consideration of informal entrepreneurship, social capital, social value, and circular economy theory. The latter aspect incorporates presentation of an informal entrepreneurship related circular economy model.

1. **Informal Entrepreneurship and Social Capital**

Entrepreneurship considered as a means of co-ordinating tangible and intangible resources to provide value in output form for those engaged in it is invariably perceived as being driven by specific individuals (i.e. Barney, 1991; Cope, 2005; Kreiser, Patel and Fiet, 2013). An enterprise by extension is formed of individuals who may not all share the entrepreneurial zeal of founding entrepreneurs, but who nonetheless are bound together in a purpose of producing value for their common benefit. Given implicit association of entrepreneurship with small organizations social capital formation is integral for development and maintenance of intimate links between individuals working within them.

Social capital formation is thus by implication integral to operations of entrepreneurial processes within organizations and development of linkages to external stakeholder entities. This aspect has been studied extensively in formal entrepreneurial contexts (i.e., Andrews, 2010; De Carolis and Saparito, 2006; Gemmell, Boland and Kolb, 2012) but sparse attention has been paid to how it may be manifested in informal entrepreneurial contexts. Given the dominant global extent of informal entrepreneurship alluded to by for example Autio and Fu (2015) and Williams and Oz-Yalaman (2021), the role of social capital formation is by further implication integral to efficient operations of markets whether considered as legitimate, illegal or occupying intermediate ‘grey’ areas.

Formal and informal entrepreneurship may also be examined through institutional means. In formal contexts explicit legal structures form regulatory environments for enterprises whereas informal entrepreneurship embodies operating outside formal institutional boundaries (Williams and Shahid, 2016). Moreover, when considering informal entrepreneurship as necessity as opposed to opportunity driven (Spicer and Ault, 2018) participants do not have access to formal institutions and thus may rely upon informal institutions which are invariably formed of their own social networks (Wallace and Latcheva, 2006; Webb et al, 2013). In the CEE transitional context for this study, informal entrepreneurship is associated with ‘institutional embeddedness’ (Welter and Smallbone, 2011) whereby cognitive institutional norms formed under central economic planning conditions prior to 1990 persist into the subsequent transition period. Thus the nature of social capital formation acquires a hierarchical or ‘vertical’ dimension whereby relationships are developed between entrepreneurial actors and other relatively influential institutional actors. This aspect may be implicitly assumed to apply in formal entrepreneurial contexts, but given an extent of necessity driven entrepreneurial association associated with transition (Williams and Bezeredi, 2018), it might also apply in informal contexts.

Informal entrepreneurship in the CEE region may also be characterized by ‘path dependency’ (Welter, Smallbone and Pobol, 2015) to encompass barter based transactions embedded in entrepreneurial practices pre-dating the centrally-planned era. Relatedly, with avoidance of taxation commonly cited as prime motivation for engaging in informal business activity (i.e. Polese, Kovács and Jancsics 2018; Williams and Bezeredi, 2018), informal income generation acts to replace taxable income sources. With formal employment rates of Roma individuals relatively low in the CEE region (Iusmen, 2018; Vermeersch, 2017), informal employment assumes a substitutional function yet is associated with menial work and by implication low vocational skill levels. Thus it is assumed informal employment is dependant upon the existence of social capital networks in local communities given implicit levels of low social and occupational mobility.

While ethnically based social capital formation has received sufficient attention in other ‘developing country’ contexts (i.e. Berrou and Gondard-Delcroix, 2018; Morales et al, 2018), it has barely attained similar levels in terms of application to Roma communities in the CEE region. Cognizance is due to the long established historical presence of Roma in the region (Iusmen, 2018). Roma are however popularly perceived as a single homogenous cultural entity and as commonly not adhering to ‘mainstream’ cultural norms and values when they are actually formed of distinctly separate tribal entities with specific cultural and lingual characteristics (Cespeli and Simon, 2004). This aspect infers intrinsic usage of social capital networks to facilitate informal entrepreneurship which may be specific to different Roma communities. Existence of such networks may preclude access to them by other Roma entities and by non-Roma individuals impoverished in the transition era. Nonetheless, regardless of tribal affiliation, engagement in informal entrepreneurship and employment may serve to enhance overall social value.

1. **Informal Entrepreneurship and Social Value**

While social value notionally acts as a measure of output of social entrepreneurship, measurement is generally hindered by its relative intangibility. This is largely due to social entrepreneurship by definition addressing social problems as opposed to offering market driven value propositions which can be measured in monetary terms in relation to offered products or services. In historical terms, social entrepreneurship arguably is rooted in social movements in the USA and Western Europe in the 1960s and 1970s (Hervieux and Voltan, 2018). The current global climate of prominent visibility of environmental issues has arguably resulted in elevation of the status of social entrepreneurship in terms of public consciousness. Furthermore, social entrepreneurship may be embedded in entrepreneurial ecosystems (i.e., Isenberg, 2010, Spigel and Harrison, 2018) whereby interaction between stakeholders enables exchange of social value. Furthermore, this aspect adds credence to the view of agency theory conferring prominent roles on social entrepreneurs (Grimes et al, 2013).

With the focus of this study on informal Roma engagement in municipal waste collection, such activity infers creation of social value. However, social entrepreneurship has hitherto barely been considered in informal contexts. This may be partly due to the relative ease of conducting research in formal settings given empirical difficulties in estimating the extent of informal entrepreneurship (Autio and Fu, 2015; Williams and Kayaoglu 2020), which in turn may be partially due to reluctance of informal entrepreneurs to self-identify as such. Moreover, perceptions of the informal economy as synonymous with illegal activity may also bolster perceptions that it does not function to create social value. Formal registration of a social enterprise as a business entity confers a degree of legitimacy not readily available to informal counterparts. This leads perhaps to a popular assumption that informal entrepreneurial activity does not create social value when in reality it may do so.

The question then arises as to how might informal entrepreneurs view their activities in value propositional terms. Assuming informal entrepreneurship is borne of necessity orientation, market value would assume precedence over social value. The existence of international informal and illegal markets for electronic waste products for example (Garg, 2020; Grant and Oteng-Ababio, 2021), would suggest the illegitimate creation of market value of municipal waste while serendipitously alleviating social issues. Furthermore, evidence exists for the participation of Roma as suppliers and intermediaries in international and informal waste product markets (Vaccari, and Perteghella, 2016). Their informal activities might thus be regarded as adding social value by means of improvisation utilizing bricolage principles whereby use of available resources however meagre is fully utilized (Baker, Miner and Eesley 2003).

Bricolage also entails use of frugal innovation principles nurtured by informal ecosystems (Igwe at al, 2020). Hence social value creation may depend on ethical perspectives of ecosystem stakeholders (Chandra, 2019). Moreover social value is also transmitted through social capital networks or ‘communities of identity’ (Lumpkin, Bacq and Pidduck, 2018) to suggest this occurs within ethnically bound parameters. By building on previous conceptual work by Gittins (2020), it is assumed social value may thus be maximised by both formally registered social enterprises and ethnically based informal counterparts depending on the extent of social capital networks. Formality infers greater availability of resources and less reliance on bricolage principles as illustrated in Figure 1 below:-

**Figure 1. Social Value and Relative Formality**

 Formally registered social entrepreneurship

Formality

 Ethnically embedded informal entrepreneurship

 Social Value

1. **The Circular Economy and Informal Entrepreneurship**

With the conceptual onus of the circular economy upon sustainability of existing resources through resource renewability there is an attendant need for incorporation of aspects of environmental preservation into its operational rationale (Centobelli *et al,* 2021; Esposito, Tse and Soufani, 2018). In relation to this study its actual application is focused on minimization of industrial and municipal waste through collection and recycling whenever feasible. To some extent this may be addressed through the application of industrial principles whereby economies of scale are utilized for large scale municipal waste collection as in advanced market economies in Western Europe, but in relatively under-developed regions this function is also performed by informal entrepreneurial actors (Scheinberg et al, 2016; Velis et al 2012). Rapid economic growth in countries such as China, India and Brazil in recent decades has arguably been largely unaccompanied by a commensurate extent of urban infrastructural development. Thus in many cases informal entrepreneurial actors are heavily involved in municipal waste collection alongside official providers (Velis, 2018). Moreover, there is evidence of informal waste collection enterprises being accorded official recognition by for example conferment of co-operative status in Argentina (Carenzo, 2020) and in restrictions of the scope of official municipal waste collection in New Delhi to allow informal actors to pursue their activities (Kornberg, 2020).

In both cases the operation of informal enterprises tacitly adheres to circular economy principles by controlling and minimizing the extent of municipal urban waste in co-ordination with official bodies. This is encapsulated in an ‘intera’ model illustrating the interaction of official waste collection services with a social interface featuring waste picking actors and a notional value chain interface whereby collected material is processed and recycled whenever possible to the mutual social benefit of all parties (Velis et al, 2012). There remains however a problem of measurement of value of materials given various difficulties in estimating quantity levels in which the presence of informal collectors either inaccurately or not recording waste collection information may be a prominent factor. This is partly addressed by a ‘wasteaware’ model (Wilson et al, 2015) incorporating qualitative indicators to reflect the function of governance of intera-based waste municipal waste management systems.

The development of these models is indicative of growing conceptual interest in the past decade in the role of informal entrepreneurship in municipal waste management and recycling. In that regard the municipal waste sector could be seen as highly appropriate for application of circular economy principles. Most research studies on informal involvement in municipal waste management tend to be qualitative by nature which can be deduced to be largely due to difficulties in estimating numbers of participants as alluded to by Autio and Fu (2015). Nonetheless a propensity for utilization of bricolage principles is displayed through for example creation of new products from waste material (i.e. Giovannini and Huybrechts, 2017; Carenzo, 2020; Odoru-Appiah et al, 2020; Guibrunet, 2021). This aspect would also infer implicit adherence to circular economy principles, yet the extent of involvement of informal enterprises is still relatively unacknowledged in terms of waste management policy formulation (Velis et al, 2012; Scheinberg et al, 2016).

Bricolage related informal entrepreneurship studies also tend to implicitly emphasize inter-communal social capital formation. This is discernible in studies by Coelho, Hino and Vahldick, (2019), Igwe et al (2020), Sheikh and Bhaduri, (2020), Wierenga (2020) and Guibrunet (2021) whereby a common feature is that of tacit utilization of communal social capital networks to drive innovation capabilities. While such innovation may be characterised as ‘frugal’ and ‘grassroots based’ (i.e. Igwe et al, 2020, Matos and Hall, 2020, Wierenga, 2020) it is also formed within resource constraint parameters not readily applicable in formal entrepreneurial contexts. Relatedly, Korsgaard, Müller and Welter (2021) suggest ‘spatial bricolage’ is utilized by local sourcing and community involvement in resource procurement in economically peripheral areas of Denmark. While this particular study was conducted in a relatively advanced economic setting there is resonance with a lack of social and occupational mobility pertaining to Roma communities underlying the CEE transitional context for this article. Thus bricolage tendencies are assumed to be borne of social capital creation in given localities, subject to prevailing cultural and cognitive institutions specific to a given dominant ethnic entity.

 In relation to the circular economy it might be suggested informal entrepreneurship borne of bricolage may be as integral to its application as is formally bound social entrepreneurship. The latter construct may also utilize bricolage based principles but is assumed not to be subject to a similar extent of resource constraints faced by informal entrepreneurs. Moreover, it can be assumed that formally bound social entrepreneurs generally possess an implicit or explicit sense of vision and mission not shared by their informal counterparts. Thus social value arising from informal entrepreneurial activity in the circular economy may be viewed as serendipitous. Furthermore, informal waste collection practices may have harmful environmental, social and health related effects. For example, Nithya, Sivasankari and Thirunavukkarasu (2020), examine various health hazards associated with informal waste recycling on a global basis. Roma communities are also active in hazardous waste collection and may dispose of unmarketable materials by for example burning plastic for domestic heating purposes (Rothensteiner, Kopacek, and Obersteiner, 2012; Vaccari and Perteghella, 2016).

Such practice is representative of ‘negative externalities’ whereby economic activity has an overall negative social impact (Antoci et al, 2020; Masoudi and Bowie, 2021) and is thus applicable to circular economy in addition to traditional linear models. Furthermore, assuming negative externalities are derived from informal entrepreneurship embedded in necessity orientation, serendipity may have a deleterious as well as a socially beneficial impact. In this regard, Matos and Hall (2020) developed a typology of productive, unproductive, non-productive and destructive forms of entrepreneurship in impoverished regions of Brazil. The latter two categories are borne of weak formal institutions and resource scarcity. Destructive entrepreneurship in particular may possess parallels with informal waste collection in that entrepreneurs may dispose of items deemed to be of little or no marketable value with subsequent deleterious effects in terms of social well being.

On the basis of the preceding narrative the following section is used to develop rationale for presentation of a model encapsulating informal entrepreneurship in relation to the circular economy to guide methodological development.

1. **Circular Economy Ecosystem Model**

Entrepreneurial ecosystem theory has developed in the past two decades being largely predicated on the presence of institutional stakeholders of government, higher education and private business as large companies nurturing small business development as outlined in ‘Triple Helix’ theory (i.e. Etkowitz, 2003; Leyesdorff and Deakin, 2011). It is assumed that the operational functioning of ecosystems is based on the existence of social capital ties between stakeholders and this aspect is assumed to similarly apply to circular economy principles. Given prominence of informal entrepreneurship in municipal waste collection activities globally, it is further assumed by building on work by Igwe et al (2020) that ecosystem governance is framed in terms of both formal and informal institutions from which rules are derived. This effectively drives the functioning of a dual formally and informally based entrepreneurial ecosystem as depicted in Figure 2:-

**Figure 2 – Circular Economy Ecosystem Model**

**Positive Outcomes**

Provision of social value

Renewable products and services

**Ecosystem Governance**

Formal Rules

Informal Rules

**Formal Entrepreneurial Ecosystem**

**Informal Entrepreneurial Ecosystem**

**Negative Outcomes**

Health hazards

Environmental damage

The duality element is emphasized though separate transmission of formal and informal rules to formal and informal ecosystem segments. Roles of institutional stakeholders as outlined in Triple Helix theory are embodied in formal rule transmission enabling social capital tie development in the formal ecosystem segment. Informal rules are assumed to derive from cultural norms specific to respective ethnic groups. In relation to circular economy principles, affinity with the natural environment is bound in spiritual and religious values common to various ethnic groups (Harvey, 2003). With Roma groups somewhat stereotypically characterized as following nomadic lifestyle patterns (Roditi-Rowlands, 2002; Foley and Cooney, 2017) such environmental affinity with circular economy principles might also be assumed.

Innovation capabilities are assumed to be present within the entire ecosystem, albeit subject to greater levels of tangible resource availability in the formal ecosystem segment. Bricolage utilization enabled by the presence of social capital networks is representative of frugal innovation largely applicable to the informal ecosystem segment. Entrepreneurial activity results in negative and positive outcomes. Negative outcomes in the form of health related and environmental damage may be more tangibly calibrated than social value as a positive outcome. Nonetheless, in essence the model provides a basis for addressing the extent to which informal entrepreneurship may facilitate application of circular economy principles.

**Conclusion**

With informal entrepreneurship assuming ever greater levels of prominence in terms of global public discourse principally due to the ongoing presence of the Covid-19 pandemic, its potential as a vehicle for addressing sustainability related issues is still often disregarded in terms of academic and policy related debates. There is a growing body of evidence from various lesser developed regions of the world to suggest informal participation in municipal waste collection activities may serve to efficiently complement formal and official waste collections services. This aspect has been barely researched in relation to informal entrepreneurial activities of Roma communities in the CEE region. Moreover, the region is subject to European Union environmental policy directives arguably reflective of sustainability norms more strongly embodied in cultural values of Western European countries, but is still subject to endemic poverty levels which may be seen as incompatible with such sustainability norms.

Policy related debate in recent years has focused on the relative desirability or otherwise of efforts to ‘formalize’ informal entrepreneurship activities. The sheer global scale of such activity would suggest formalization in terms of deriving economic contributions through increased taxation revenue for instance is fraught with implementation difficulties. Roma participation in municipal waste collection activities as highlighted in this paper would however illustrate a strong extent of economic and social contribution in terms of collection and disposal of waste products. Currently ongoing ethnographically oriented field research of Roma waste collection activities by these authors is yielding evidence to suggest this is the case. While not all collected waste material is safely disposed of or recycled, it is fair to suggest that circular economy principles are being adhered to by participants, albeit perhaps on a relatively subconscious or tacit level.

This aspect underscores the potential contribution of informal entrepreneurship to addressing overall economic sustainability as embodied in the circular economy. As sustainability assumes greater urgency at a global level in relation to climatic change, incorporation of basic bricolage driven practices performed by informal entrepreneurs will correspondingly assume greater importance.

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