The Alignment of Circular Economy Business Models (CEBM) with the Strategies of Small and Micro Enterprises Operating in Malta

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Abstract: This paper sets out preliminary findings for research investigating, from a dynamic viewpoint, how small and micro enterprises operating in the small island state of Malta align their business strategies with Circular Economy Business Models (CEBM). The aim is to establish an analytical framework evaluating their process of alignment. These businesses are a major economic driver for the island. In 2021, out of the 55,950 registered businesses in Malta, 52,674 were micro-firms and 2,686 were small businesses (NSO 2021). The study applies grounded theory methodology, using Corbin and Strauss’s conditional matrix (2015) and Charmaz’s constructivist approach (2006). To understand their implementation of circular practices, interpretative, in-depth interviews were carried out with five owners-managers in the service, logistics, manufacturing, retail, and wholesale sectors. The research postulates an early conceptual model showing how a set of contextual conditions influences the alignment of CEBM with the strategies of businesses in Malta. Factors influencing CEBM adoption include owner-manager’s personal traits, organisational factors, and external factors. The findings presented are part of a larger study mapping common alignment paths pursued by firms in the circular economic shift. It offers recommendations to owners-managers, policymakers, and academic researchers. Few studies have yet focused on the alignment between CEBM and the business strategy of firms in small island states. Generally, studies concentrate on larger businesses in bigger countries. This research study adds significantly to existing knowledge and academic literature.

Keywords: circular economy; circular economy business models; small and micro enterprises; small island states; business strategies; grounded theory

Objectives of the Paper

This working paper concerns the adoption of Circular Economy Business Models (CEBM) by small and micro enterprises in Malta (for a full list of key terms and acronyms see the List of Abbreviations) Small-sized enterprises are defined by the EU recommendation 2003/361 as organisations with an annual turnover equal or lower than €50 million and which employ between 10 to 49 full-time workers. Micro firms are enterprises with an annual turnover equal or lower than €2 million and who employ less than 10 employees (EC 2003; EC2020).

Circular economy is currently receiving attention as a way for nations to improve their economies’ sustainability (Camilleri 2019; Schwab and Sternfels 2022). It is an economy in which the value of products, materials, and resources is maintained in circulation for as long as possible (Houston et al. 2019; Stahel 2016). The circular economy paradigm brings environmental and business benefits (Camilleri 2019; EC 2018; EC 2020; UNSD 2012). The shift from a linear to a circular economy helps countries to attain the seventeen sustainable development goals (SDG) set by the UN (2030 Agenda; Bâc 2018). This circular economic
shift is even more vital for small states like Malta because their culture and environment are less diverse and their biodiversity more limited (Camilleri 2019). Policymakers and institutions are increasingly seeing the importance of the resilient transition of these businesses to a circular economy (Schwab and Sternfels 2022).

The development of intergovernmental policy on sustainable production and consumption at a global and European level led national governments to enact circular action plans that aim to develop a business environment in which producers will be responsible for their products from launch stage to the end of their life cycle (Farrugia 2021). These government policies impact the operations of business, especially those of small firms, since they are a major driver of the economy. In Malta, not only are 98% of the local businesses small enterprises, but 95.1% of them are micro-businesses (NSO 2020). During 2021, of the 55,950 active businesses in Malta, 52,674 were micro-businesses and 2,686 were small firms. Due to their size these businesses lack the required resources and skills to cope with changes brought about by the transition to a circular economy and thus to align their strategies with CEBM. The concept of circular economy is more complex in small island states like Malta (MESD 2018).

Current literature focuses neither on the barriers and enablers of CEBM to businesses in small states, nor on the macro- and micro-environmental conditions shaping the context in which such enterprises operate, nor does it explore their different operational environments as compared to counterparts in larger countries (Baldacchino 2020; Farrugia 2021; Houston et al. 2019; Rizos 2015).

This study therefore has the following objectives:

1. To identify and evaluate contextual factors that act as precursors to the adoption of CEBM in small firms;
2. To determine enablers and barriers to CEBM-strategy alignment in small enterprises;
3. To establish an analytical framework for evaluating alignment of CEBM with these firms’ business strategies;
4. To find common patterns of CEBM-strategy alignment in small enterprises.

Understanding barriers and enablers in these firms’ contextual conditions contributes to a better understanding of how such enterprises adopt CEBM to achieve their circular economy shift.

**Methodology**

Grounded theory, a qualitative methodology which builds theory from data with a constructivist approach, was adopted for this research (Bryant and Charmaz 2019; Corbin and Strauss 2015). Grounded theory builds its propositions from the ground of primary data gathered and analysed, with the researcher’s understanding being informed by literature and experience. This methodological stance is particularly appropriate and suitable here because: research data from Malta is scarce; available studies focus on enablers and barriers to CEBM in SMEs in large economies; and existing studies do not analyse the contextual conditions shaping the environment of small firms.

A grounded theory method uncovers the contextual conditions of local small firms from interview data. The study focuses on the actions and motivations of owner-managers who exert a major influence on their business (Curran and Blackburn 2001). Open coding and constant comparison analysis were used to create an abstract conceptual framework (Birks and Mills 2015). Purposive sampling was adopted by selecting interviewees whose firms...
and personal experience provide a rich and diverse data field in this study area. The data analysed provides an initial model for a working theory constructed using MAXQDA2022 software package.

**Evaluation of Emergent Constructs from Initial Research Findings**

MAXQDA2022 is used for data mapping and coding capabilities. Procedures for setting, administering, transcribing, and coding the interviews are standardised. Charmaz's (2006) guidelines on data collection, comparison, memoing, and analysis were carried out after each interview. This process enables the immediate analysis of data and the generation of concepts to be used in successive interviews.

From this method, where there is a constant comparison of incident to incident, incident to codes, codes to codes, codes to categories, and categories to categories, constructs relating to the adoption of circular economy practices emerge (Birks and Mills 2015). A top-down approach groups the emergent constructs in a hierarchical structure, linking categories, subcategories, properties, and dimensions with Corbin and Strauss's (2015) definitions. Categories are concepts at a higher level under which lower-level concepts are grouped according to shared properties. Subcategories are medium-to-high concepts linked to a higher-level category. According to Charmaz (2006), properties which are linked to a corresponding sub-category consist of components of an object or action. Dimensions are variations within properties and provide specificity and range to concepts (Charmaz 2006).

![Figure 1: Coding of constructs using MAXQDA2022](image)

The hierarchical structure in Figure 2 follows the coding paradigm of the “Conditional and Consequential Matrix” (Corbin and Strauss 2015). It incorporates the three categories of contextual conditions, actions and reactions, and consequences and outcomes. Ten categories are linked to the three main categories, which denote the different patterns of circularity in small enterprises. The contextual conditions represent the context in which CEBM adoption takes place. The owners-managers respond to the contextual conditions through their actions and interactions. Outcomes arising out of the actions and consequences, which can change the contextual conditions, are the implications of these actions.
The interrelationships between the emergent constructs in the hierarchical structure are identified by evaluating structure-to-process (Strauss and Corbin 1998). The contextual conditions and the consequences create the structure. Process refers to the actions and reactions of these firms.

**Figure 2: Evaluation of Emerging Constructs of CEBM adoption in small and micro enterprises**

As indicated in Figure 2, 'owner-manager’s interest in circularity' (a contextual condition) and 'managing circular activities' (an action/reaction), significantly aid the understanding of the CEBM-Maltese small business alignment process. These two subcategories affect the firm’s involvement in research and innovation as well as sectoral collaboration. Furthermore, these two subcategories impact the CE enablers and barriers.

The owner-manager’s interest in circularity is being influenced by other diverse contextual conditions, as illustrated in Figure 2. These are grouped into external factors, organisational factors, and the owner-manager’s personal factors. There is a strong relationship between organisational factors and the owner-manager’s personal factors because in these firms the owner is a dominant influence on their business (Curran and Blackburn 2001). The
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owner’s attempt to resource maximisation, the firm’s effort to comply to CE regulations, and the owner’s attitudes towards circularity determine the owner’s management of circular activities.

In Figure 3 the main subcategories are further expanded into their properties and dimensions.

**Figure 3: Proposed Framework of the adoption of CEBM in small and micro enterprises**
Contextual Conditions

In this study, prominence is given to owners-managers because they are the leaders managing their businesses. They are the catalysts for change in their respective firms, in particular for driving forward the adoption of CEBM (Curran and Blackburn 2001). Furthermore, as noted above, there is also the different context of a small island economy to keep in mind (Baldacchino 2020).

Owners-managers’ Personal Characteristics

In Malta the alignment of CEBM with business strategies greatly depends on the owner-manager’s personal characteristics. Such personal factors include information and knowledge, inclination and interest, mindset, and, most importantly attitude to CEBM. It is striking that owners-managers are aware but not knowledgeable about circularity. Interviewee One holds that owners-managers mistake circularity for sustainability and Corporate Social Responsibility (CSR). This aligns with the view of Hanon and Magnin (2016), who distinguish between sustainability and circularity. Owners-managers consider circularity as a cost burden. They fail to recognise the long-term benefits of circularity. There is no genuine interest in CEBM nor is circularity yet a priority for these Maltese businesses. The mindset of owners-managers is focused on short-term profitability. Owners-managers tend to be reactive rather than proactive when managing their business and do not question their present way of doing business. They do not actively pursue innovation, including the adoption of CEBM. Other significant personal traits that influence adoption are age and level of education. The younger the owner-manager, the more open they are to CEBM because they are more knowledgeable about new concepts. Interviewee Three refers to the influence of social media on younger owners-managers. Through social media, younger owners-managers become informed about what is happening in larger countries. Those with tertiary education are more able to identify long-term benefits of CEBM because of their exposure to new concepts in their educational journey.

Organisational Factors

These comprise a firm’s vision, corporate planning and corporate culture, as well as organisational factors such as a firm’s resources, size, and industry sector. Their HR resources do not allow time for corporate planning. Therefore, these businesses are reactive to major stimuli arising from their business environment, rather than proactive in taking up new business opportunities. They can also be more flexible and change quickly in reaction to external stimuli because of their small size.

Unlike some medium and large enterprises, they lack a long term strategic vision. They deal with changes in their business environment as these arise. Consequently, they fail to recognise future industry drivers like the circular economy which tend to have a longer term return. Their business objective is survival rather than growth. They give priority to factors that affect their short-term profitability rather than long-term returns. They are motivated to invest in CEBM only if there is a tangible impact on short-term profitability. Although the majority do not have a business plan, these businesses do acknowledge the importance of planning for future business operations. They fail to recognise circular economy as a future challenge and all five believe that logistics and inflation are the major future challenges.

Their limited resources rarely allow for training activities, attending informative conferences, and re-skilling employees in areas such as green jobs. They focus on paying wages and satisfying customers’ needs. Few resources remain for innovative ideas like circularity. Rosse et al. (2017) also argue that CEBM is not a priority for small businesses.
All interviewees state that price is still the overriding factor in procurement. The exceptions are industries like consumer electronics, construction and retailing, where circular efforts are required by law or where the firm operates in green sectors like renewable energy solutions. In these sectors, there is more interest and expertise in circularity. As a result, the industry sector is a significant influencer of CEBM-strategy alignment. Furthermore, their corporate culture is based on retaining traditions—maintaining the status quo. They are slow in innovation which is an important contributor (Ernst and Young 2022; SBA 2019;). Interviewees Two and Four argue that these enterprises resist change even if it will bring economic value to them. They fear new challenges resulting from change because they do not have the resources—mostly finance, time, and expertise—to implement change. This reduces flexibility in their operations. Their corporate culture also includes the belief that their size renders their contribution to national issues such as circularity, economic well-being, innovation and digitalisation, insignificant. As a result, there is limited interest in government incentives to stimulate innovative ideas for the CE transition.

External Factors

The CEBM-strategy alignment is determined by the size of the island’s economy and its political and regulatory framework. Other external influences are Maltese culture, customers, social media, and business stakeholders. The small size of the economy distinguishes Maltese businesses from their counterparts in larger countries. They are, to some extent, protected from external influences and thus from any urgency to be proactive and implement change. Maltese enterprises are generally late adopters of new concepts. Nevertheless, when there is the urgent need to change (for example as was the case with the Covid-19 pandemic and its effects) then in fact the small size of the island enables a quick reaction to external stimuli. This is in line with Bertram and Baldacchino (2009) and Baldacchino (2013) who suggest that there is a strategic flexibility enjoyed by small island states. However, all interviewees acknowledge that the reactive mentality of the Maltese is restraining businesses from fully exploiting this flexibility.

Further, as Interviewee One explains, the small size of the island allows best practices to be imitated quickly in all industry sectors, as happened with the recycling of carton boxes and used consumer home appliances. In addition, Malta’s geographical position at the centre of the Mediterranean facilitates connections between local enterprises and foreign businesses.

Malta’s small size makes it difficult for enterprises to achieve economies of scale and take advantage of cost benefits. This discourages the adoption of CEBM because most circular activities, like recycling plants, require economies of scale to be economically viable. To overcome this challenge all interviewees agree that for successful CEBM-strategy alignment, cooperation between businesses is required, which interviewees remark is missing in Malta. As Baldacchino (2008) suggests, lack of cooperation is a feature of Maltese business culture. Interviewees Two and Five explain that this is because the Maltese market is small with limited potential to acquire new customers, something which creates high levels of competition between businesses and stifles cooperation even if such cooperation could lead to economic benefits. Consequently, to be able to adopt circularity, these enterprises require help from the government or professional associations such as the Malta Chamber of SMEs or the Malta Chamber of Commerce to find areas for cooperation, as with recycling. Such cooperation will incur additional costs because Malta is not connected to other countries by land; sea transportation increases the cost of the burden of circularity.

As Interviewees One and Three state, small enterprises expect the government to support them to implement circularity. All interviewees feel that government is not doing enough to fulfill its role in the circular transition. Interviewee One remarks:
Alone the business will not do it unless circularity makes economic sense. Any business, even small, must compete—this is a fact that few realise.

Challenges of regulatory requirements are mentioned by JP Morgan Asset Management (2022) in their study of EU member-states. The Maltese government has introduced policies and regulations in some areas, including fuel consumption, packaging and renewal energy, while excluding others. However, existing regulations are not being enforced. Furthermore, the government in Malta’s case has not yet set circular economy targets for these businesses. Therefore, owners-managers have little motivation to align circularity with their strategies. In fact, circular initiatives are being undertaken by businesses operating in sectors where the government has introduced regulations related to circularity, such as in construction and electrical and electronic equipment. Brauer (2022) and Spiteri (2020) similarly conclude that without clear enforceable targets, owners-managers will not develop ownership of circularity. All interviewees believe that local small businesses do not consider UN 2030 Agenda and EU targets as influencing their future operations.

Since these firms lack the necessary resources, the government must introduce economically viable incentives to motivate them to implement circularity. Interview Three states that:

For the small businesses there must be incentives, else they would do the bare minimum.

The need for assistance for small and micro businesses has also been recognised by the European Commission (EC 2018; EC 2020). Studies by Spiteri (2020), Camilleri (2019), and Houston et al. (2019) state that owners-managers doubt whether government funds are enough to implement circular activities. Interviewees One and Five remark that businesses feel unfairly treated because the government offers tax incentives to attract foreign direct investment to Malta but does not provide tax rebates for small businesses who embark on circular initiatives. Interviewee Five observes:

There is a lot of talking about the importance of micro firms to the economy, but look at the budget or at the laws, we micro firms are given the same treatment as our larger counterparts.

The think small first principle does not seem to be applied with respect to legal obligations. Indeed, Camilleri (2019) argues that the legal burden is not proportionate to the size of the firm. Interviewee Four feels that when it comes to environmental laws, the government discriminates against small businesses and is more ready to relax legal obligations in favour of larger businesses. The owners-managers perceive legal obligations as a cost burden rather than an economic opportunity. For instance, the administrative burdens relating to the WEEE and BCSR schemes make these look unattractive to these owners-managers. They feel that they are not kept informed of new regulations and grants. Communication explaining the legal obligations is difficult for owners-managers to understand. Research by diverse authors, such as Hoevenagal et al. (2007), Rademackers et al. (2011), and Muller and Tuncer (2013), has shown that small enterprises have less access to funding mechanisms owing to their lack of knowledge.

Malta lacks a solid regulatory framework in relation to circularity. The political system of the island creates instability for the proactive mindset required by the CE transition. As Interviewee Three remarks:

Since the parliamentary cabinet of ministers changes on average every 5 to 10 years, it goes against this idea of forward thinking because each minister will have their own agenda and there is the tendency to kill continuity.
McKinsey (2015) and Spiteri (2020) report that for circular transition to succeed it must be a priority in the government’s main agenda. SBA (2019) recommends that the Maltese government improves policies and their enforcement. Both Interviewee Three and Interviewee Five believe that the government’s investment alone is insufficient to solve the island’s environmental problems. Interviewee Five strongly believes that government’s green investment must be complemented with education to change the mentality of businesses and customers:

Owners-managers are short-sighted—for them what matters is short-term returns. But if customers are reluctant to adopt green offers, how can business owners be convinced to review their business models to go circular?

Interviewee Three states:

The adoption of circularity depends on the type of owner—his willingness to adopt circularity, his culture, and market preferences. Customers are the life of a business, if for the customer CE is not a priority, the business will not adopt it.

All five interviewees hold that Maltese small firms are well behind their foreign counterparts because of a lack of confidence in their abilities. This sense of inferiority is widely acknowledged in literature about the history of the Maltese islands, which derives from the long dependency of the Maltese population on foreign colonial rulers (Baldacchino 2008; Baldacchino and Bertram 2009; Frendo 1991; Pirotta et al. 2001). They expect the government to solve this problem. Frendo (1991) and Baldacchino (2013) identify a strong trait of the Maltese which is that of expecting free services, something which Frendo (1991: 21) believes the public “ought to do for itself”. Interviewee Four feels that the Maltese are disconnected from the national government and that they should understand that if the government pays fines for not meeting EU circularity targets, it is from the Maltese people’s own money.

Stakeholders are another significant influencer. A primary stakeholder is an industry association which acts as small firms representatives, such as the Malta Chamber of Commerce, the Malta Chamber of SMEs, and the Malta Institute of Accountants. Interviewee Three holds that despite information events organised by industry associations, owners-managers feel that there is ineffective communication between these representing bodies and their members. Interviewee Five argues that they are experiencing an information overload, whereas Interviewee Three states that the firm cannot afford to have an employee dedicated to reading information communicated by industry associations. Interviewee Three argues that in their industry there is seldom any communication about new developments from the sector’s association. Both lead to a lack of knowledge about circularity. Nevertheless, interviewees recognise the significant role of industry associations in recycling schemes like WEEE Ltd, GreenMT and BCSR Ltd.

Customers are another significant influence. Owners-managers are not prioritising aligning CEBM to their business strategies because the niche market for green consumers is not currently viable economically. Interviewee One emphasises:

For businesses what matters are the customers.

This is consistent with the attitude-behaviour gap of Gatzer et al. (2021), who conclude that although the trend to buy green products has started, consumers’ behaviour differs from their responses in attitude surveys. Interviewee Two explains how circular initiatives are being undertaken where they are obliged by the law and not because they are demand-driven.
It is striking how much owners-managers are influenced by professional service providers because of the level of trust which exist between the two parties. Interviewee Five remarks:

_In my opinion, if accountants and other professionals are convinced about the shift to CE, they will pass on this idea to the small firms._

Interviewees Two and Four believe that the government should provide them with experts to identify areas in their strategies where circularity can be introduced.

**Actions and Reactions**

*Deployment of Circular Initiatives*

This subcategory focuses on firms that have not been obliged by law to invest in circularity. Their initiatives involve radical changes in product redesign, supply chain, organisational structure, and business models. The most common are related to new products and services. There are others who are creating secondary material from waste and end-of-life products, such as components from household appliances or electronic equipment. Firms deploying circular projects are using government funds to invest in new infrastructural systems and training. These businesses are perceiving CEBM as profitable opportunities and innovative endeavours. They are aligning CEBM with their business plans. These proactive firms, normally start-ups, are first movers capturing markets that are unserved, differentiating themselves from competitors and charging premium prices whilst saving on costs (Brishan et al. 2022). Interviewee Three argues:

_They are forward-looking in the sense that they see in circularity a business opportunity._

However, all interviewees state that only few small firms are adopting CEBM. It is Maltese medium and large enterprises that are involved in circularity because of their vision for growth. As indicated previously, the purpose of the majority of these firms is not growth but survival. Interviewee Three states:

_But the problem is the difference between small/micro and the medium-sized businesses. Although we introduce our clients to these new concepts, they don’t even dare to try._

Interviewee Four states:

_The large and medium organisations eventually will adopt CEBM but not the small businesses whose main priority is economic viability._

*Sustainable Activities*

All interviewees agree that the majority of Maltese small firms are adopting sustainable, as opposed to circular, measures. In fact, Interviewee Four observes:

_Some are adopting sustainable measures but are not employing CEBM._

The most common sustainable practices mentioned are the reduction of paper and the increase in teleworking. These measures were not initiated as a means to safeguard the environment but were brought about by COVID-19. They were retained after the pandemic because both led to increased efficiency and reduction in costs. For instance, Interviewee Five remarks:
During the pandemic we saved costs—space (every paper printed must be filed and stored), ink and paper. We helped the environment, but we saved costs. It is more efficient and safer, there is no risk of fire or flooding that will destroy the paper records.

Interviewee One explains that their firm is implementing sustainable initiatives as part of their effort to contribute to society:

*We are giving a free aluminium water flask. We embark on these initiatives not because there are laws.*

Interviewee Two states:

*“In the office we are getting water dispensers instead of buying bottled table water. It saves us money.”*

Other cost-saving sustainable initiatives undertaken are renewable energy, efficient water management, and the return of packaging to suppliers. Interviewee Three holds that sustainable measures are insufficient for a complete circular transition which takes time. These firms have no plans to adopt CEBM because of the costs involved. Interviewee One relates how their business was considering changing the packaging strategy to one utilising degradable material, collecting, and recycling the packaging. However, it is challenging for his firm because of the high packaging costs which will have to be borne by the customer. Therefore, unless sustainable measures save costs or are demanded by customers, this subcategory of firms will not readily undertake sustainable measures.

**Forced Circularity**

The forced circularity subcategory encompasses circular activities which firms are legally obliged to implement. Firms must register with schemes such as the Beverage Container Refund Scheme (BCRS), which was introduced by government to fulfil the *polluter pays principle* and other EU regulations. Because of their lack of resources, small firms are represented in these schemes by the Malta Chamber of SMEs. These businesses follow circular plans which just meet regulatory requirements (Brishan et al. 2022). Interviewee Three holds that, at times, owners-managers lack knowledge of the schemes’ legal requirements. They register because they are told to do so by the Malta Chamber of SMEs. They are unaware that they are embarking on circular initiatives. What matters to them is that they are in line with the law. Interviewee Four remarks:

*Because most of the effort related to circularity is coming from regulation, Maltese SE look at it more as a cost burden rather than an economic opportunity for cost savings.*

This subcategory also includes small firms that are pressured to adopt sustainable activities because of the policies of their international mother company or franchisor. For example, in the retail sector there are firms that charge a fee per bag to be put into sustainable forests as required by the mother company.
Reluctance to Circulate

This subcategory includes firms that refrain from circular activities because they believe that circularity is the responsibility of the government. Because of their size they hold that they must not be treated like their larger counterparts when it comes to circular measures such as waste management. These businesses lack knowledge and interest in circularity and think that CEBM are impossible to implement in their particular industry. For example, Interviewee One argues that in their industry—fashion—not even global firms are adopting circularity, hence it cannot be expected that small Maltese businesses implement the CE shift. They are reluctant to invest in the infrastructure needed to undertake circular activities even if there are grants available to finance this investment. Some owners-managers believe that government grants are insufficient to finance green initiatives, as also argued by Kirilyuk et al. (2020) who state that national grants tend to be more appropriate to large and medium-sized firms. As emphasised before, firms are not ready to adopt circular measures unless these are economically viable and meet consumer demand. In fact, Interview One states:

Look at the local business awards. Only two businesses were nominated for the most sustainable businesses. This shows how low on the business's agenda circularity is.

Resource Maximisation

These are firms that take up recycling and waste management initiatives in order to maximise the use of resources. It is the income generated by such activities that motivates these firms. Circularity is still considered an insignificant activity and does not form a central part of the firm's business planning. Some enterprises involved in recycling activities, in particular of the product packaging they import, are unaware that such activities are circular. They are motivated to carry out these activities because, as previously discussed, they have seen others doing it. Interview Three comments:

In this tiny island word spreads quickly. Business owners-managers of small and even large organisations would soon learn what is happening around them.

Consequences and Outcomes

The consequences and outcomes of CEBM adoption by small enterprises focus mainly on three factors: barriers and enablers of the circular shift; firms’ dependency on external assistance leading to collaboration; and the owner-manager’s vision for research and innovation. These constructs impact the degree of alignment of CEBM with business strategy.

CEBM Adoption – Barriers and Enablers

Figure 3 lists the barriers and enablers which emerge from the data. One of the significant barriers is the owners-managers' knowledge gap about circularity developments, which makes them feel insecure when they are presented with government incentives. This is made worse by the administrative burden of the grants’ application process identified previously, which creates a significant barrier to CE transition. For example, Interviewee Two remarks:

There are so many ongoing schemes that the small self-employed considers as an administrative burden—a punishment rather than an opportunity.
Their insecurity also discourages them from outsourcing the administrative work involved in the funds’ application process and in appointing experts, even though the related costs are refunded. Houston et al. (2019) also note that the availability of government and EU funding are pivotal in the shift of businesses to circularity.

On the other hand, a significant enabler is the flexibility of these local firms which tends to accelerate the CE shift. External provision of expert advice and economically viable incentives are other enablers of the shift to CE, as Rizos et al. (2015) and Spiteri (2020) also suggest. Interview Three states that:

‘Small is beautiful.’ We can adopt quicker to external circumstances, we are agile.

Sectoral Collaboration

Because of lack of economies of scale, most circular activities are largely initiated by the government in collaboration with businesses. The outcomes of these initiatives are the small number of recycling and waste management schemes, in particular industrial sectors to meet EU regulatory requirements. Businesses are obliged to form part of this collaboration. Industry associations representing small and micro firms are instrumental in the implementation of schemes. However, as Spiteri (2020) also advocates, for the CE transition to materialise government intervention must occur, not just in industry sectors where circular targets are imposed by the EU, but in as many industries as possible, thus leading to cross-sectoral collaboration. Interviewee One notes that:

The government focuses on a few areas. But there is more to circularity: new product ideas, the designs of buildings, in other words, promoting research and innovation in all industries.

Research and Innovation

CEBM-strategy alignment requires a mindset that is open to innovation, which this research indicates is present in younger owners-managers with a tertiary education familiar with digitalisation. They are more likely to be founders of small start-up firms or owners-managers who have taken over their enterprise from older family members. They perceive circularity as a new business prospect that will bring growth to their firms. Interviewee Five remarks:

The younger groups are more aware of circularity, not because of the impact on the environment but because they are more up to speed with technology.

Rizos et al. (2015) also conclude that for innovative small business owners, the CE transition represents a significant business opportunity. These owners-managers are changing corporate culture and restructuring their firms. This radical organisational change brings operational efficiency. They consider the costs of adopting CEBM an investment rather than a cost burden. Therefore, any innovative ideas undertaken by these firms are initiated by the owner-manager who tends to keep abreast of new business concepts by, for example, attending conferences outside Malta each year. Such businesses are working closely with industry associations, government, experts, and outsourcers. However, the lack of skilled staff makes them dependent on outsourcers and the lack of resources force most of them not to employ full-time staff dedicated to circular projects.
Main Propositions Emerging from the Data

Following data analysis, five propositions emerge:

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<thead>
<tr>
<th>Proposition</th>
<th>Proposition Statement</th>
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<tbody>
<tr>
<td>Proposition 1</td>
<td>Small enterprises managed by young innovative owners-managers with tertiary education are more likely to align business strategies with CEBM</td>
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<tr>
<td>Proposition 2</td>
<td>CE shift requires a cultural change on three levels: individual, corporate, and national</td>
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<td>Proposition 3</td>
<td>Owners-managers who lack knowledge about CE fail to align business strategies with CEBM</td>
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<td>Proposition 4</td>
<td>Sectoral and cross-sectoral collaboration accelerates the CE shift</td>
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<td>Proposition 5</td>
<td>CE shift of small enterprises depends on government support in the form of solid legal frameworks and incentives</td>
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Table 1: Emergent Propositions for CEBM-strategy alignment

Implications and Conclusions

Of particular interest to researchers are the constructs illustrated in Figure 2 and the detailed constructs which emerged in Figure 3, both of which are the foundation for adding to knowledge about CEBM-strategy alignment. This research will furthermore diminish the literature gap identified in the introduction of this paper and provide useful material for stakeholders.

This initial research shows that owners-managers’ knowledge about circularity and CEBM is pivotal to the effective adoption of these innovative business models. It is recommended that industry associations and policymakers work to encourage cultural change so that CE is perceived as a source of competitive advantage rather than a cost burden. Interviewees suggest that the provision of educational programmes addressing owners-managers’ lack of knowledge about circularity, CEBM innovation, and digitalisation skills would help this change process. Policymakers and industry associations should organise educational programmes to change the negative perception of owners-managers. As Rosse et al. (2017) point out, knowledge about circularity is an essential driver in the CE transition. The education of owners-managers contributes towards ecopreneurship, that is, the development of innovative businesses grounded in ecological and sustainable principles and activities. Malta’s geographic position and its lack of natural resources could make ecopreneurship a genuinely important economic contributor to the island’s economy and a real and new source of income and profitability.

The enterprises examined here lack resources, including finance, expertise, and time. This makes them dependent on the government’s funding. Policymakers would benefit from a better understanding of these firms’ business processes and operations before launching incentives. Interviewees suggest that incentives be made more economically viable to firms as this would act as a strong motivator. Consequently, it is suggested that the think small first principle be kept at the forefront when drafting incentives and policies, as well as in discussions in international contexts. As Spiteri (2020) states, the application process
needs to be made simpler and require fewer administrative burdens. Interviewees Three and Four recommend having access to experts who can identify opportunities for aligning CEBM with the firm's business strategies.

It is evident from this study's data that collaboration between small enterprises themselves is essential. Collaboration would overcome the lack of economies of scale in Malta. Interviewees suggest that policymakers and industry associations create mechanisms that push businesses towards collaboration, especially in those sectors that are a large contributor to the Maltese economy, such as construction. Interviewees also recommend cross-sectoral circular schemes that go beyond industry sectors regulated by EU legal obligations such as WEEE.

Interviewees propose policymakers work with them to strengthen the regulatory framework. According to Farrugia (2021) and Houston et al. (2019), regulation needs to be clear, enforced, and communicated in a language that is understandable. Interviewee Two identifies the influence of professionals, such as accountants, on CE transition because of the relationship of trust between professionals and owners-managers. He recommends professionals keep themselves informed of latest developments in the circular economy and promote its adoption to small and micro businesses.

Markets are subject of the laws of demand and supply (Laibman 2019). Suppliers and service providers will be motivated to supply products and services only if there is a demand for them (Peng et al. 2021). Consequently, consumers play a major role in the transition to a CE. If the demand for green products is low, suppliers and service providers will be reluctant to redesign their products and review their business models to align them with circularity. All interviewees recommend policymakers and industry associations embark on informative campaigns targeting consumers to induce a demand for green products and services.

Policymakers, institutions, and experts will be able to provide relevant support to small enterprises only if they understand the challenges for these firms in the transition. By determining enablers and barriers of CEBM-strategy alignment, this study seeks to assist policymakers and institutions in developing educational programmes, resources, and legal frameworks to aid this transition. If businesses shift from linear to circular business models, not only will this make sustainable economic development more likely, but it will also offer economic benefits to businesses and new opportunities for enterprise.

**Recommendations for Future Research**

The results of this study can form the basis of further research endeavours. In the larger study of which this preliminary work is part, further in-depth interviews with owners-managers will be carried out until theoretical saturation is achieved. The hierarchical structure illustrated in Figure 1 will be enhanced as more constructs emerge from interview data and more properties and dimensions are added to the subcategories depicted in Figure 2. The research will thus provide a robust and data-grounded model for evaluating the alignment of CEBM with the business strategies of a small island state.

Finally, one significant evaluation factor for qualitative research is how far findings are transferable from one context to another (Flick 2014; Shenton 2004). The model emerging here, therefore, could usefully be tested in other small island states such as Cyprus and Antigua. Small island states share common characteristics such as limited resources, limited economic diversity, and vulnerability to climate change (Briguglio 1995); as such, it would be productive to test this model's relevance in these similar environments as it may assist their transition to a circular economy.
Acknowledgements

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List of Abbreviations

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<tr>
<th>Abbreviation</th>
<th>Definition</th>
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<tbody>
<tr>
<td>BCSR</td>
<td>Beverage Container Refund Scheme</td>
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<tr>
<td>CE</td>
<td>Circular Economy</td>
</tr>
<tr>
<td>CEBM</td>
<td>Circular Economy Business Model</td>
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<tr>
<td>CSR</td>
<td>Corporate Social Responsibility</td>
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<td>EC</td>
<td>European Commission</td>
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<td>EU</td>
<td>European Union</td>
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<tr>
<td>MESD</td>
<td>Minister for the Environment and Sustainable Development</td>
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<td>NSO</td>
<td>National Statistics Office</td>
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<td>SBA</td>
<td>Structural Business Statistics</td>
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<td>SDG</td>
<td>Sustainable Development Goals</td>
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<td>SME</td>
<td>Small and Medium Enterprise</td>
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<td>UN</td>
<td>United Nations</td>
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<td>WEEE</td>
<td>Waste Electrical and Electronic Equipment</td>
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References


Brauer, C. 2022. ‘If hitting net zero is providing a challenge you could profit from a powerful new blueprint helping UK companies make their environmental goals a reality’. *The Times*. Available at: https://www.thetimes.co.uk/static/sustainable-business-climate-change-technology-microsoft (accessed 17 February 2022).
The Alignment of Circular Economy Business Models (CEBM) with the Strategies of Small and Micro Enterprises Operating in Malta


