SMALL BUSINESS, BIG IMPACT:
ENCOURAGING SMALL BUSINESS IN CANADA
COMPOSTABLE PRODUCTS/PACKAGING CASE STUDY

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EXECUTIVE SUMMARY

Small businesses contribute substantially to the Canadian economy, and it is therefore essential that these businesses continue to start, grow and prosper in order for the Canadian economy to do the same. This report examines a few of the ways that small firms can be encouraged to start and supported in their endeavors by the Canadian government. Interviews with several small companies in the compostable product/packaging industry inform its recommendations. Given that the drivers of and barriers to entrepreneurs and small businesses across the country often depend on industry, some of the recommendations coming out of this report are specific to the compostable product/packaging industry. These are:

- To perform further research into the possibility of better harmonizing composting certification standards and regional waste management systems, as harmonization would grow the market for compostable products/packaging significantly;
- To consider a new eco-certification to set apart products and packaging that are proven compostable in the environment or in local industrial facilities (under real conditions);
- To improve marketing standards

Other recommendations apply more broadly to eco-product innovators in general. This project finds that eco-product innovative small businesses can be encouraged to start and better supported in two ways:

- By improving access to financing
- By improving access to collaboration with research institutions and universities

The final recommendation will simplify small business operation across many industries. That is:

- To continue to simplify and streamline interactions with federal regulatory agencies, especially through continuing to improve the service culture
INTRODUCTION

Small business is big business in Canada. According to Industry Canada, small enterprises – those with less than one hundred employees – comprise over ninety-eight percent of Canada’s employer businesses and employ the majority of the private sector workforce (2013). Estimates also indicate that small businesses generate somewhere between one quarter and one half of the country’s total GDP (Debus, 2007; Industry Canada, 2013). It is therefore essential that these businesses continue to start, grow and prosper in order for the Canadian economy and the Canadian population to do the same.

The purpose of this report is to determine how small Canadian firms can be encouraged to start and subsequently supported by the federal government. This is of course a lofty goal, and one that is difficult to achieve without a significant investment of time and resources. Given that these factors have been severely limited in this research, only the experiences and unfulfilled needs of small businesses in one industry – that of eco-innovative compostable products and packaging – will be considered here. This report will most fully explore the ways that small firms either innovating or providing access to compostable products and/or packaging can be encouraged and supported at the federal level; it will only extrapolate the lessons learned from this particular industry to all small businesses in the country where it seems applicable and consistent with other research.

LITERATURE REVIEW

Eco-innovation and eco-product innovation in small firms

One cannot properly determine the best ways to encourage and provide for entrepreneurs and small businesses in compostables without first recognizing the motivating factors and barriers common to eco-product innovators. Broadly speaking, eco-innovation refers to the production, diffusion or implementation of a product, process, service, business method
or management strategy which reduces environmental risk, pollution or excess resource use (Kemp & Pearson, 2007). Given that the hurdles and incentives to eco-innovation depend on whether the innovation is to a product, process or organizational strategy (Horbach, Rammer & Rennings, 2012; Triguero, Morendo-Mondéjar & Davina, 2013), only eco-product innovation will be discussed here. There are two reasons for this: (i) the small businesses being considered in this study are founded upon creating and/or diffusing eco-products, and (ii) process and organizational innovations most often require businesses to pre-exist them, whereas product innovations are more likely to catalyze new businesses, a topic of central interest in this report.

Eco-product innovation refers to the creation and diffusion of new or improved products which ultimately reduce or avoid environmental harms (Rehfeld, Rennings & Ziegler, 2007). This type of innovation is easily defined, however, the factors which motivate or prevent it are not (Kammerer, 2009). Studies evaluate the various roles played by demand-side factors, supply-side factors and government policy, but often come to different conclusions as to the climate which best fosters eco-product innovation, eco-product success, and, as a result, new businesses to both create and provide access to such products.

The barriers and drivers of eco-product innovation

Many experts concur that increasing the market demand for sustainable products incentivizes eco-product innovation, as eco-product innovators are highly driven by the market (Cleff & Rennings, 1999; Cuerva, Triguero-Cano and Córcoles, 2013; Kammerer, 2009; Rehfeld et al., 2007; Triguero et al., 2013). This research coincides with that of John Baldwin, who finds innovative Canadian small enterprises to be “demand-driven and top-down firms” (1995, p.12). A few studies disagree, finding the market not to be a statistically significant driver of eco-product creation and diffusion (del Río, Peñasco & Romero-Jordán, 2013; Horbach et al., 2012). However, one of these admits this finding may have resulted from the reluctance of consumers to pay for eco-products in their particular study location of Spain (del Río et al., 2013). Although
there is still debate as to the strength of the market-pull in eco-product innovation, it seems that there is more evidence supporting the market as an important driver than an irrelevant factor.

Some internal firm characteristics such as technological capability and financial flexibility are also relevant drivers of eco-product innovation. Horbach’s work (2008) demonstrates that well-developed technological abilities and highly qualified employees will stimulate eco-product innovation. Cuerva et al. (2013) point out the importance of cash flow, finding that financial constraints pose a greater barrier to eco-innovative small businesses than businesses engaging in other types of innovation. This result is particularly interesting, as access to financing is already a major challenge for innovative small businesses in Canada (Jung, 2012; OECD, 2006; Wang, 2009).

The final factor examined by most studies on the barriers and drivers of eco-product innovation is that of government policy, however, as Kammerer (2009) emphasizes, the effect of policy remains disputed. There are three main ways public policies can influence eco-product innovation: via “sticks” (i.e. environmental regulations), “carrots” (i.e. subsidies and tax breaks) or by supplying information and facilitating knowledge flows between firms and knowledge institutions (del Río et al., 2013). A number of studies find that “sticks” motivate environmental innovators more so than supply-push instruments such as subsides (Cleff & Rennings, 1999; Cuerva et al., 2013; del Río et al., 2013; Horbach, 2008; Horbach et al., 2012; Rehfeld, 2007). del Río et al. (2013) also determine that policies which facilitate the flow of information from knowledge institutions to innovative businesses increase these businesses chances of success.

Just as the best ways to motivate entrepreneurs and small businesses in compostables cannot be determined without first understanding the drivers and barriers to this specific industry, neither can these be determined without considering the issues that commonly plague Canadian small businesses more generally. However, there is simply not space to attend to these
issues comprehensively in any detail, as they are numerous and complex. Therefore, more broad Canadian small business issues will only be brought up in relation to the concerns mentioned by interviewees in the findings and discussion section below.

METHODS

Determining the ways in which small firms can be driven to start and subsequently supported by the Canadian government necessitates narrowing the focus to one industry in a study of this limited scope. The most pressing issues faced by small businesses and entrepreneurs in Canada are likely to vary significantly depending on industry (not to mention along many other lines – business age and region, for example). Therefore, in order to collect data with any sense of cohesion, and thus with any weight in terms of supporting recommendations given the few short months of this project, the decision was made to solely study small Canadian businesses either innovating or providing access to compostable products and/or packaging.

Interviewing was determined to be the best means of understanding the barriers these companies may have faced during start-up and the issues most negatively affecting their current success, as interviewing is a flexible medium of qualitative research which provides space for the expression of subjective experiences and opinions. Small businesses specializing in compostables were discovered via the internet and from other experts in the industry, and many small firms in several provinces across the country were invited to participate in this research by means of an in-depth interview.1 An attempt was made to send invitations to businesses creating or supplying only compostable and biodegradable products and packaging; firms also supplying conventional plastic products were avoided. Participation was entirely voluntary. Of the many businesses contacted, seven responded with interest and six continued on to do interviews, which ranged

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1 Though most interviews were not rigidly structured in this research, the appendix provides some sample questions so as to give a sense of the types of questions asked.
from forty minutes to an hour and forty-five minutes in length. Interestingly, of the companies who responded and eventually participated in the study, all but two operate out of British Columbia. The reason for this regional concentration is unknown, yet it is important to note the possibility that this skewed regional distribution may have influenced the data coming out of this research. However, there does seem to be consistency in the issues faced by small businesses specializing in compostables in BC and the two firms located outside of the province.

FINDINGS AND DISCUSSION

Motivators of eco-product entrepreneurship

The entrepreneurs participating in this research were initially motivated by two primary factors; half explicitly mentioned being driven by pressing environmental concerns and an interest in sustainable development, whereas the rest expressed being driven more so by consumer demand for eco-products within markets in which they already operated. This suggests that, in the eco-product world, some entrepreneurs have a stronger desire to facilitate culture change and thus start-up businesses to this end, whereas others acknowledge and respond to culture change that is already in motion. In the case of this study, those businesses being motivated primarily by an existing market demand for eco-products tended to be those whose founders had previous business experience in conventional plastic products and/or packaging.

These findings demonstrate that the market is, as suggested in the literature, a very relevant driver of eco-product innovation and eco-innovative small business creation in Canada. As the market continues to become more educated on issues such as climate change, pollution and excessive resource use, it will demand more sustainable products, and as a result new businesses will spring up to create and supply the products to fill this demand.
Access to collaboration networks and financing

Access to collaborations with research institutions and universities can drive eco-product innovation. The one company utilizing these connections feels they have significantly improved their innovations, stating that “universities are great for small companies like ours because they provide us access to high-tech equipment and human resources that we would not otherwise have access to.” Other interviewees have attempted to access these networks, but have been largely unsuccessful.

According to one British Columbia based company, “it takes significant financial acumen and dexterity to manage the period of start-up [...] in Canada there are gaps along that path.” These ‘gaps’ have been experienced by just about every company interviewed. Robert Pocius of TekPak Solutions in Ontario, a small business providing a unique biofilm which breaks down in the presence of microbes in soil or water, has attempted several times to access financing through federal programs, but each time has not been approved for one reason or another. Pocius has known several small innovative companies, companies on the leading edge of new technologies, who have moved and set up operations in the United States due in part to a lack of financial assistance from the Canadian government. Katrina Ramdath of Core Sales Inc., a family run business distributing compostable products across Canada and also in the United States, told of a similar lack of assistance. Her father, the founder, received no financial assistance or incentives and funded the entire venture at his own personal expense, mortgaging their house for collateral so as to be able to secure loans. Other interviewees have had similar experiences, not being approved for federal funding programs where those avenues have been pursued and thus going into significant debt in establishing themselves, consequently slowing their later growth. Access to financing continues to be an issue for these eco-innovative firms beyond the initial start-up phase. After being recognized by the National Research Council with an award for
innovation in 2012, Pocius expected that it would become easier to access federal financing programs, but these resources have remained inaccessible.

The extreme difficulties interviewees have faced in accessing financing are consistent with Cuerva et al.‘s finding (2013) that accessing financing is even more difficult for small eco-innovative businesses than other small innovative enterprises, for whom it is already a challenge (Jung, 2012; OECD, 2006; Wang, 2009). This lack of access to financing in innovative and especially eco-innovative small firms is a significant impediment to establishment and growth.

*Interactions with federal agencies*

Small businesses in Canada have for years cited the unnecessary burdens, frustrations and costs of complying with regulatory programs and interacting with federal agencies as major barriers to their productivity (Red Tape Reduction Commission, 2012; Jones, Gormanns & Wong, 2013). The experience of Susanna Carson of BSI Biodegradable Solutions and BSI Bio-Packaging Solutions in Vancouver illuminates some of the reasons behind this frustration. Items from her Bésics compostable food service ware and packaging line are in process with Health Canada to ensure their suitability for food contact, and some of these products have been in process for over two years. Carson mentioned a lack of control in dealing with the agency, not knowing which information she needed to provide in order to get through the approval process and not being able to find out the status of an application without considerable hassle if at all. Due to the lack of clarity regarding the information needed in order to receive a letter of no objection for her products, Carson has at times waited up to six months only to receive a letter explaining that she needs to slightly alter and resubmit her forms. This process is made all the more frustrating, says Carson, due to the fact that there is often no one she can contact to get assistance.

The Canadian government is already well aware and has been working to relieve the burden of red tape on small business, which has consistently been identified by small firms as
the issue of most pressing concern to them other than overall tax burden (Jones et al., 2013). In January of 2011 Prime Minister Stephen Harper announced the Red Tape Reduction Commission, which over the year conducted roundtables with business owners across the country to identify the irritants most detrimental to business productivity and success (Red Tape Reduction Commission, 2012). The Commission’s report made many specific departmental recommendations and also suggested long-term structural changes (Jones et al., 2013), changes which should help alleviate issues dealt with by business owners like Carson. However, it is clear that the effects of the Red Tape Reduction Action Plan are not consistently being felt on the ground.

**Gaining market share**

Many of the issues identified by small eco-innovative businesses in compostable products/packaging are associated with gaining market share. These companies are competing against conventional paper and plastics – not to mention each other – when bringing their innovations to market, and breaking into such an established industry is difficult for a number of reasons. First, compostable bioplastics and fiberware are often more expensive than conventional products and packaging because these products have not yet reached economies of scale (Anonymous Interviewee). Despite many consumers’ initial interest in compostables, says Maria Meshkova of Agreen Products in Burnaby, British Columbia, when confronted with samples and price lists many admit they are unwilling or unable to absorb the cost. These higher costs are exacerbated by the duties paid by importers and exporters of compostable products and packaging say Carson, Ramdath and one other British Columbia importer and distributor. Ramdath (and presumably the others) pays 6.5 percent duty upon importing her products into Canada, another 6.5 percent duty when exporting to the United States, both on top of paying the 5 percent Goods and Service Tax. These customs duties make it difficult to keep final consumer costs low and thus attract customers. In addition, small businesses have far fewer
employees, less time and less money to dedicate to marketing their innovative products than do their large counterparts. Carson states that due to the low profit margins in the compostable packaging distribution game, it is necessary to move a lot of product in order to stay in business, however this is extremely difficult given the factors working against these small businesses.

Standards, certification and composting infrastructure

Perhaps the issue discussed most passionately by interview subjects is the need to create a better standard for compostability in Canada. Though many of the products and much of the packaging on the market today is certified compostable in industrial facilities by ASTM, ISO, and recognized as such by the American Biodegradable Products Institute (BPI), these certifications and standards are inappropriate for the regional waste management systems that exist across Canada today. According to Pocius, the first issue with claiming commercial compostability is that industrial composting facilities are available to only a very small portion of the Canadian population, and many compostables only truly break down under conditions maintained in industrial facilities. Even where industrial composting facilities exist, they often run on cycles much shorter than the time required for many certified compostable products/packaging to properly compost. This means that even certified products are often unacceptable in industrial facilities. Meshkova, Carson and Ramdath further call attention to the problem of marketing standards. A plethora of products on the market are labeled with words such as ‘biodegradable’ or ‘green,’ words which are not necessarily interchangeable with ‘compostable,’ and thus industrial composters are all too often inundated with products that contaminate the compost when they do try to accommodate compostable products and packaging. The inadequacies of certifications, marketing standards, and proper waste management infrastructure reduce the true compostability of many products on the market, and this in turn reduces the market demand for these eco-products.
CONCLUSIONS AND RECOMMENDATIONS

The recommendations following from this report are three tiered. The first set of recommendations apply specifically to the compostable product/packaging industry, the second set more broadly to eco-product innovators in general, and the final recommendation being applicable to small businesses in many industries across the country.

Given that specialists in compostable products and packaging tend to agree the market would expand dramatically if compostables and regional management systems could be harmonized, and given that the market has been shown to drive new businesses in this industry, this study recommends further research into how this might be accomplished and subsequently a new eco-certification to set apart products and packaging that are not only compostable in theory, but that are proven to be compostable in the natural environment or in local industrial facilities (under real conditions). Secondly, this project recommends implementing better marketing regulations so as to prevent greenwashing labels (such as “degradable”) that are not interchangeable with “compostable,” as these can mislead consumers and detract from small compostable product/packaging firms’ market share.

Courses of action can also be taken to encourage the creation and support the success of eco-product innovative firms in general. This research finds that the government can both motivate and grow eco-product innovative small firms by improving their access to financing, and further that this is quite urgently needed. However, this project will not recommend how the government should do this; investing in eco-innovative firms does involve some amount of risk and management strategies for this are outside the scope of this project. The government can also encourage eco-product innovation and thus new businesses by improving access to collaboration networks, perhaps via a new Industry Partnership Program specifically designed for small businesses and entrepreneurs interested in eco-product innovation.
The final recommendation coming out of this report is for the Canadian government to continue to work towards streamlining and simplifying interactions small businesses may have with federal agencies. Despite being a goal of the Red Tape Reduction Action Plan, this research has found that regulators are still not meeting service expectations, especially in relation to time frames for regulatory approvals and in the provision of helpful, easily contactable service agents within regulatory bodies.
REFERENCES


APPENDIX (SAMPLE INTERVIEW QUESTIONS)

1) When founding your business, what would you say was the issue that was most difficult for you to overcome?

2) Would you agree that understanding and complying with tax and other government regulations are the factors that most hinder your productivity by taking up valuable time and resources, or is there another issue that you believe most compromises your success as a company (a lack of access to financing, a shortage of skilled labour, etc.)? Please describe how this barrier effects your business.

3) Did you experience difficulty in accessing financing when starting your business or when trying to grow? If so, what were the barriers you faced, and how did you overcome them? If not, what avenues did you pursue that ended up being successful?

4) One major issue with growing businesses specializing in biodegradable and compostable packaging is that there is a “chicken and egg” problem with biopackaging production and waste management. The market for these products will not grow significantly until sufficient waste management systems are in place, but these waste management systems will not be established until there is a critical mass of biopackaging to be dealt with. Do you see a solution to this problem?

5) What do you think has most contributed to the success of your most popular product(s) in the marketplace? On the flip-side, what do you see as your biggest struggle in selling to the market?

6) One factor that many researchers seem to agree drives eco-product innovation and contributes to eco-product success in the marketplace is cooperation with a large number of team members during product design or, even better, cooperation with research institutions and universities. Is this collaborative process one that you’ve gone through? If so, how has it contributed to your success?

7) Other than those we’ve discussed already, are there any issues that you have faced previously or are currently facing in your business in which you think the federal government might have a role in strengthening or growing your business? How?