
Measuring the Performance of Business Accelerators and Incubators: Lessons from Ontario

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Abstract: Business Accelerators and Incubators (BAIs) are becoming an increasingly popular tool for supporting the creation, development and growth of startups around the world. This paper describes the performance measurement framework used by fifty-nine campus-linked BAIs at forty-four academic institutions across the province of Ontario, Canada. The paper discusses how activity and outcome metrics were collected using the framework, and how the data was used by various stakeholders. The paper concludes with six lessons learned from Ontario's experience: 1. Data is your currency; 2. Measure both BAI activities and startup outcomes; 3. Performance measurement is a two-way street; 4. Data quality is a contact sport; 5. Less is more, and; 6. You get what you measure.

Keywords: Business incubators, business accelerators, metrics, performance indicators, startups, entrepreneurship ecosystem, angel investment, venture capital, economic development, innovation policy

1. Introduction

Business Accelerators and Incubators (BAIs) are becoming an increasingly popular tool for supporting the creation, development and growth of startups around the world. In Canada, the number of BAIs increased from 83 in 2005 to 150 in 2012 (Dalziel, 2012; Joseph, Bordt, & Hamdani, 2006).

BAIs are an efficient way to create value for several startups simultaneously using a defined set of resources. BAIs may create important spillover benefits by promoting greater interconnectivity within their regional entrepreneurship ecosystems. The new knowledge and relationships gained by individual entrepreneurs who participate in a BAI may also increase their future entrepreneurial capacity, even if their current startup does not survive.

Despite the apparent benefits of BAIs to the startups they serve and to the broader entrepreneurship ecosystem, the empirical evidence on whether BAIs improve the survival rates and growth of new ventures is mixed (Deep first report, refs and perhaps describe). This is due in part to the dearth of reliable data on BAI activities, and the relationship between these activities and the success rate of startups. To put it more plainly, there simply is not enough data available to determine whether BAIs improve the success rate of startups. This has caused an over-reliance on qualitative evidence of performance, such as case studies and success stories.

In recognition of this problem, there is a growing trend among BAI managers, funders, sponsors, and policy makers towards a data-driven approach to measuring BAI activities and performance, and improving our understanding of what types of BAI interventions are linked to successful outcomes. Lubik (2016) provided an excellent review of the current state-of-the-art in BAI performance measurement and the challenges associated with commonly used input and output metrics. These challenges are further complicated by the fact that various stakeholders that participate and contribute to BAI activities may have different objectives and measure success differently.

In their evaluation of BAI activity and performance in Canada, Deep Centre (2015) proposed a staged measurement approach, including intake, programming, graduation, and post-graduation alumni performance metrics. As part of their ongoing research on why some business incubators are more successful than others at generating successful outcomes, Valliere and Nicholls-Dixon (2017) recommended the collection of activity and performance data at three levels: individual, BAI and startup.

In February of 2017, Innovation, Science and Economic Development Canada (ISED) initiated a dialogue on the development of a nationally-standardized BAI performance measurement framework. Based on this dialogue, a Steering Committee was launched to further develop, test and refine the framework, and to eventually roll it out on a national basis. In 2018, the Steering Committee release a report outlining the performance management framework to be used for the purposes of a pilot study, which is currently underway. The pilot involves the collection and reporting of data by a small representative number of BAIs over two reporting periods. An evaluation of the pilot is expected to take place in mid-2019.

The work of the Steering Committee is timely and of great importance. The framework it produces will have a considerable impact on BAIs across Canada and beyond. It is incumbent upon all stakeholders in the BAI community, from both private and public sectors, and from all levels of government, to support the Steering Committee's efforts by providing any input that might be useful. It is in this spirit that the following paper is presented.

Over the last five years, a sizable network of campus-linked BAIs has been operating across the province of Ontario. A performance management framework was developed and refined over this period to collect data on the activities and performance of the BAIs in this network. This unique example of a large-scale framework implementation may provide a useful case study of the opportunities and challenges of measuring BAI performance at an ecosystem level.

Indeed, the insights from this case study may help to inform the ongoing efforts by ISED and the Steering Committee to develop a national BAI performance measurement framework. They may also help other jurisdictions, networks of BAIs, or individual BAIs, in the development and implementation of their performance measurement frameworks.

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Dr. Martin Croteau is a Lecturer and Research Fellow with the Entrepreneurship Research Institute at the Ted Rogers School of Business, Ryerson University. Previously, Martin was the Director of Academic Entrepreneurship at the Ontario Centres of Excellence, where he oversaw the Government of Ontario's funding for campus-linked BAIs. In collaboration

with government policy-makers, he helped to develop the performance management framework used by campus-linked BAIs, and oversaw its implementation and refinement over time. In his role as Director, Martin was responsible for using the framework to manage the activities of campus-linked BAIs, and to report on their performance to government and other stakeholders.

The opinions expressed in this paper are those of the author and do not necessarily reflect the opinions of any other stakeholders in Ontario's campus-linked BAIs. All references to Ontario's campus-linked BAIs and its performance measurement framework are based on publicly available information.

2. Ontario's Campus-Linked Accelerators and Incubators

The following section provides context on the performance management framework they used by Ontario's campus-linked BAIs.

2.1. Background

Ontario has developed a network of campus-linked business accelerators and incubators (BAIs) with a presence at every academic institution in the province. Ontario's campus-linked BAIs provide services and infrastructure aimed largely at young entrepreneurs (under 30 yrs. old), whether located on or off campus, in each of the communities where a university or college campus can be found.

Although a small number of pioneering campus-linked BAIs have been operating in Ontario since as early as 2002, a network of eleven campus-linked BAIs was created with \$5 million in financial support from the Government of Ontario's Experiential Learning Pilot (ELP) in 2011 (ref). Since 2014, Ontario's Campus-Linked Accelerator (CLA) and On-Campus Entrepreneurship Activities (OCEA) programs have provided an additional \$43.6 million in financial support for campus-linked BAIs (ref). Most campus-linked BAIs in Ontario also receive considerable financial support from their academic institutions, from community and corporate partners, and from other levels of government.

2.2. Network Scale and Scope

By 2016, Ontario's network included 59 campus-linked BAIs involving 44 academic institutions across Ontario. In that year, these BAIs supported the creation of 1276 startups in total. They managed facilities with a total capacity of over 550,000 square feet, including 2,400 desks, several meeting and collaboration spaces, and various large networking and event spaces. The network also included maker spaces and product development and testing facilities that housed over 1,000 specialized tools and equipment, and 155 rapid prototyping machines (impact study – annual report?).

Most BAIs in the network are sector agnostics and serve the needs of startups from several industries. However, some BAIs provide access to services focused on specific sectors, such as information and communication technology or health technologies, while others offer services targeted to specific types of entrepreneurs, such as social enterprises or women-led startups. In 2016, 48% of the startups served by Ontario's campus-linked BAIs

were in the digital media and ICT sector, while 20% were in the green energy technology sector and 13% were in the advanced health technologies sector.

Individual BAIs within the network differ considerably in size and scope. It includes world-class, internationally-recognized incubators such as DMZ Ryerson and Velocity at the University of Waterloo; it also includes very small programs that, despite their size, play an important role in their startup support ecosystem, often in remote or economically disadvantaged communities.

2.3. *Performance Management*

The Government of Ontario's support for campus-linked BAIs is administered by Ontario Centres of Excellence (OCE), a not-for-profit organization that co-invests in partnership with industry to commercialize innovation originating in the province's publicly funded colleges, universities and research hospitals. OCE also supports the development of the next generation of innovators through entrepreneurship fellowships and programs for students and youth across Ontario (ref OCE website). The high-level operation of the network is overseen by a cross-functional team of four people, with active support from OCE's team of 40 Business Development Managers deployed across the province to encourage the integration of campus-linked BAIs within their regional entrepreneurship ecosystems.

In addition to administering provincial government funding for campus-linked BAIs, OCE is responsible for collecting performance metrics from the BAIs. A BAI performance measurement framework was developed in consultation with the Government of Ontario. Individual metrics, their definitions, and data collection practices were iterated over time based on the experiences and feedback of the BAIs.

3. **The Performance Measurement Framework**

In principle, BAIs create value for the startups they serve in three important ways (Wise & Valliere, 2014). First, BAIs provide valuable knowledge to the startup founders through mentorship and advice from experienced entrepreneurs and other experts. Knowledge is also gained through access to workshops, seminars and other *ad hoc* educational resources. Interaction with the other startups served by the BAI may also be an important source of new knowledge.

Second, BAIs provide access to valuable resources and connections to the broader startup support ecosystem. This may take the form of access to specialized service providers, such as lawyers and financial services, who are typically vetted by the BAI and who may provide *pro bono* or discounted pricing. It may also involve introductions to potential customers or partners, and access to suitable investors.

Lastly, BAIs lend credibility to the startups they serve. BAIs typically use a screening and evaluation process to select the startups that best meet their objectives and criteria for quality. Acceptance into a BAI can send an important signal to the community about the quality of the startup. The greater the reputation of the BAI, the stronger the signal.

One of the key guiding principals in the design of the performance measurement framework for Ontario campus-linked BAIs was to capture data not only on the performance of the startups served by the BAIs, but the on the BAI activities that may be attributed to the performance of these startups.

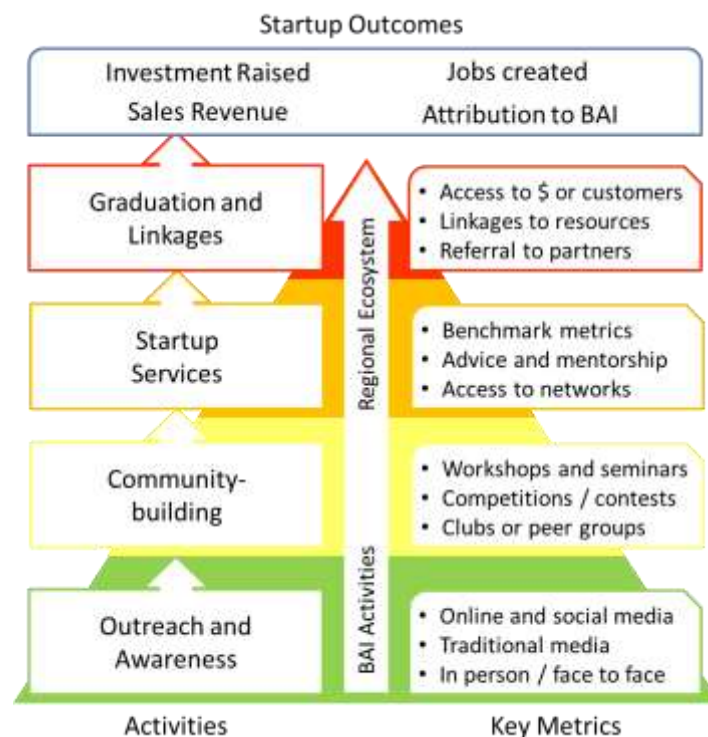


Figure 3.1: Performance Measurement Framework

3.1. BAI Activity Metrics

Ontario’s campus-linked BAIs are involved in a wide-range of activities that may differ considerably in their scope and scale. The framework categorizes various activities based on their objectives, and the specific measures attempt to distill them to their most basic value. As show in Figure 3.1, the activity categories are related to each other, with the outputs from the preceding category serving as the inputs for the next. Therefore, the framework is designed to progress logically from one category to the next.

Outreach and Awareness Activities

Outreach and awareness activities target the entrepreneurs, investors, partners, sponsors and other stakeholders within the BAI’s community as they define it. Awareness is built over time by disseminating information and messaging using traditional and online media, but may also involve face-to-face interaction and word of mouth. Leveraging regional

partners is also critically important to building awareness and increasing community engagement in the BAIs activities.

Table 3.1: Outreach and Awareness Activities

| <i>Outreach and Awareness Activities</i> | <i>Frequency</i> |
|--|------------------|
| Social and electronic media | Quarterly |
| Traditional media | Quarterly |
| Events and Conferences attended | Quarterly |

As shown in Table 3.1, BAIs report on the number of website page views and unique website visitors, the number of social media subscribers, and the number of subscribers to their distribution lists. They also report on the circulation of any traditional media and the estimated impressions created by these materials. Finally, the BAIs report on the number of face-to-face interactions or impressions made at any events or conferences attended for the purpose of community outreach. Reporting for these metrics is submitted quarterly.

Community-Building Activities

Some community members who are aware of the BAI will choose to engage with it in some way. For most, this first involves participating the BAIs community-building activities. These activities are designed to bring together the stakeholders within the BAI’s community for the purpose of networking, learning and sharing. Community-building activities are wide-ranging and may include networking events, workshops and seminars, and competitions or contests. They require the community stakeholder to make an active decision to participate in the BAIs activities.

Table 3.2: Community-Building Activities

| <i>Community-Building Activities</i> | <i>Frequency</i> |
|--------------------------------------|------------------|
| Community events and seminars | Quarterly |
| Competitions and contests | Quarterly |
| Clubs or peer groups | Annually |

As shown in Table 3.2, BAIs report on the total number of events held every quarter and the total number of attendees. These would include any events that are open to the community or that are not exclusively restricted to the startups served by the BAI. BAIs also report quarterly on the total number of competitions or contests held along with the total number of participants. Clubs and peer groups are common in campus environments, therefore the number of participants in groups supported by the BAI is part of the framework. BAIs report on club and peer group activities annually, since the membership in these groups does not vary considerably from one quarter to the next.

Startup Services

Some of the entrepreneurs who engage in the BAI's community-building activities will apply to their accelerator or incubator program, and will be accepted. The startup services provided by BAIs are intended to help the founders achieve a set of defined milestones. The services may take the form of self-guided "virtual" resources, educational workshops, or one-on-one coaching and mentorship. BAIs may provide access to specialized service providers, and assistance in developing customer and investor relationships. BAIs may also provide access to infrastructure such as office space and equipment. Startup services may differ based on the stage or sector targeted by the BAI.

Table 3.3: Startup Services

| <i>Startup Services</i> | <i>Frequency</i> |
|-----------------------------------|------------------|
| Startup throughput | Quarterly |
| New startup benchmark metrics | Upon entry |
| Individuals of interest | Upon entry |
| Educational workshops or seminars | Quarterly |
| Paid advisory services | Quarterly |
| Volunteer mentors | Quarterly |
| Professional service providers | Quarterly |
| Facilities | Annually |
| Equipment | Annually |

As shown in Table 3.3, BAIs report on the throughput of startups they serve each quarter, including the number of new startups onboarded, graduated, and the total number of startups served. For any startup newly accepted by the BAI, certain benchmark metrics are provided upon entry: revenue, employees, stage, product type, and primary discipline. Given the youth focus of the campus-linked BAIs, the number of entrepreneurs under 30 yrs. old among the founders is also reported. This could obviously be modified to report on the participation of any other individuals of interest.

Next, BAIs report quarterly on the provision of four categories of startup services. First, the number of educational workshops or seminars provided exclusively for BAI startups is reported along with the number of participants. Next, the number of startups assisted by paid advisors is reported along with the number of advisory service hours provided. Similar metrics are reported for the hours provided to startups by volunteer mentors and professional service providers.

Finally, BAIs report on the facilities and equipment available for startups. These metrics are reported annually since they do not change frequently.

Graduation Activities

Many of the entrepreneurs who receive startup services will graduate into the broader regional entrepreneurship ecosystem; BAIs are merely part of the fabric of those ecosystems. Graduation events like “demo days” allow the startups to showcase their accomplishments and generate interest from potential customers, partners and investors. Graduation activities can also help connect the startup to the next set of resources they may need to achieve future growth, including referrals to later-stage BAIs, promoting a more seamless handoff between startup service organizations within the regional ecosystem.

Table 3.4: Graduation Activities

| <i>Graduation Activities</i> | <i>Frequency</i> |
|------------------------------|------------------|
| Linkages to resources | Upon graduation |
| Referrals to partners | Upon graduation |

As shown in Table 3.4, BAIs report quarterly on how many graduate startups are referred to later-stage resources within the ecosystem. The framework specifically includes referrals to regional innovation centres and provincial support programs to reflect the way in which Ontario’s entrepreneurship ecosystem is organized. The framework could be modified to report on linkages to any referrals or partners that are relevant within the BAI’s community.

3.2. Startup Outcome Metrics

Outcome metrics are collected on the post-graduation performance of the startups served by BAIs, and on the impact made by the BAI on the startups and its founders.

Table 3.5: Startup Outcome Metrics

| <i>Startup Outcome Metrics</i> | <i>Frequency</i> |
|---------------------------------------|------------------|
| Survival rates | Annually |
| Funding and investment | Annually |
| Sales revenue | Annually |
| Jobs created | Annually |
| Patent activity | Annually |
| Product development activity | Annually |
| Customer activity | Annually |
| Net promoter score | Annually |
| Attribution to BAI | Annually |
| Propensity to pursue entrepreneurship | Annually |

BAIs report annually on the outcome metrics shown in Table 3.5. Data is collected on the startups for three years following their graduation. The framework includes several economic impact metrics, including startup survival rates, the amount of funding or investment raised from various sources, total of sales in Canada and abroad, and the number of jobs created. The framework also measures certain innovation outcomes, including the number of patents filed or issued, the number of solutions brought to market, and the number of customers acquired in Canada and abroad.

Finally, the framework includes a qualitative assessment by the startup of the BAI's impact. Startups are asked to what extent they would recommend the BAI to colleagues, and how much of their current success they would attribute to the BAI's assistance. Startups are also asked to what extent the BAI has influenced their likelihood to pursue entrepreneurship in the future, which is directly related to the campus-linked BAI's unique mandate.

4. Using the Data

The data collected from the performance measurement framework described in Section 3 is used in diverse ways by the various stakeholders in Ontario's campus-linked BAIs. Each stakeholder may be interested in specific types of metrics within the framework based on their unique goals and objectives.

4.1. BAI Activity Metrics

There are three principal uses for BAI activity metrics based on the experience of Ontario's campus-linked BAIs: increasing accountability and transparency in the use of public funds, assisting in the active management of the BAIs, and providing meaningful and ongoing feedback to the BAIs.

Accountability and Transparency

Accountability and transparency metrics may be important to the stakeholders that provide financial support to the BAIs. Government agencies are most keenly interested in these metrics because the use of public funds is subject to a particularly high level of scrutiny. Accountability and transparency metrics attempt to provide visibility into how BAIs use their financial resources, and may provide an implicit rationale or justification for the funding. In common parlance, these are sometimes referred to as "butt-covering" metrics.

The accountability and transparency metrics in Ontario's campus-linked BAI framework include tracking the amount of promotional material, the number of events, the inventory of facilities, workspaces, desks, and equipment, and the number of hours by paid advisors. There can be a temptation to count anything that is countable "just in case", without a clear purpose for how the data would be used.

Program Management

Program management metrics are invaluable to the stakeholders responsible for tracking BAI operations or providing strategic oversight at a network level. They are also useful to the managers of individual BAIs. These metrics are highly effective in setting a benchmarking and tracking changes in important BAI activities over time. A positive trend

may indicate that a BAI has reached a tipping point or other form of critical mass in its activities. A stagnant or negative trend may indicate that a BAI has reached saturation or should consider a change in strategy. Sudden changes in activity metrics may also be an indicator of an unexpected event to be further investigated.

Next, these metrics are an important way to monitor conversion rates from one set of BAI activities to another. For example, does an increase in outreach activities lead to greater engagement in community-building activities? Or, do smaller cohorts lead to higher graduation or survival rates? An increase in conversion rates may indicate greater efficiency or quality of BAI activities over time.

Finally, they are also useful in comparing the relative activities of different BAIs, provided these comparisons are weighted based on the size, budget, location, stage, or focus area of the BAIs. Developing a fair basis for comparing diverse BAIs is difficult, and depends considerably on the measurement framework used and the environment. Yet, if interpreted with caution, such comparisons can be very informative for program managers.

In Ontario's experience, the most useful program management metrics measure the following: the number of community members reached by outreach activities; the number of people actively engaged in community-building activities; the one-on-one time spent with the startups served by the BAI; and, the linkages between the BAI and the broader startup ecosystem. Many of the accountability and transparency metrics described previously have questionable value in ongoing program management. However, the number of applications received by the BAI is an important metric that is missing from Ontario's performance measurement framework. The ratio of applications received to startups accepted would be a useful measure of demand and, potentially, of a higher quality in the startups selected by the BAI.

Program management metrics are most useful in circumstances where a stakeholder has dedicated one or more staff to the active management of the BAI network. This stakeholder may be a government agency or an intermediary organization, as was the case with Ontario's campus-linked BAIs. In cases where no stakeholder is responsible for program management beyond basic budget and contract administration, these metrics may be less relevant.

Feedback to BAIs

The activity metrics collected by a BAI may be useful for their internal management purposes, but the potential exists to provide additional insights using network-wide aggregate data. When it was first rolled out, the manager of Ontario's BAI framework received frequent requests from BAI managers for feedback on their performance and their relative strengths and weaknesses compared to other similar BAIs within the network.

In response to these requests, a scorecard was created to help BAIs put their activities in the broader context of their peers within the network. Despite the demand for feedback, there was initial concern about whether the scorecards would accurately and fairly portray each BAI's activities in relative terms. Privately, there was anxiety about whether the scorecards would cast some BAIs, and consequently their managers, in an unfavourable light. After much consultation and many iterations, the format for a quarterly activity "dashboard" was finalized.

The dashboard compares a BAI's activities to the average activities of other BAIs:

- *Institution*: academic institutions of similar size, measured by full-time student enrollment;
- *Region*: within the geographic region, based on 5 defined regions;
- *Funding Level*: BAIs that receive a similar level of funding from the Government of Ontario; and,
- *Overall*: all BAIs in the network.

The scorecard uses a mix of visualization tools that are appropriate for comparing certain outreach, community-building, startup services, and graduation activity levels. Since the scorecards were launched, the feedback has been largely positive. Interestingly, most BAIs can find within their scorecard at least one area of relative strength and one area with the potential for improvement. Each BAI receives a private and confidential scorecard quarterly, based on the BAI's quarterly activity metrics.

The scorecards suffer from several deficiencies, and continue to be refined over time. Nevertheless, Ontario's experience provides some evidence that the insights gained from a performance measurement framework can be shared in ways that create considerable value for BAIs, and help those who collect the data get a return on their investment of time and effort.

4.2. *Startup Outcome Metrics*

Startup outcome metrics are used for two important purposes: assessing the economic impact of the startups served by the BAI; and attributing those impacts to the activities of the BAI.

Economic Impact

Economic impact metrics are vitally important to almost all BAI stakeholders. Job creation is the key metric, and the primary policy objective, guiding the Government of Ontario's financial support of campus-linked BAIs. Economic measures such as sales revenue and investment raised are equally important to other stakeholders such as the investment community.

Given the importance of economic impact metrics, a study was commissioned in 2016 to estimate the impact of campus-linked BAIs in Ontario, based primarily on data collected using the performance measurement framework discussed in Section 3. The impact study showed that startups served by campus-linked BAIs survive considerably longer than Canadian and global averages. The study estimated that the provincial tax revenue generated by the startups' economic activity was roughly equal to the funding the provincial government provided to Ontario's campus-linked BAIs. It also estimated that within ten years, these BAIs would provide seven dollars in provincial tax revenue for every dollar of provincial funding they receive.

The impact study of Ontario's campus-linked BAIs is a tangible example of how startup outcome metrics can be used to highlighting the considerable economic and social benefits created by the startups served by BAIs.

Attribution of Impact

As shown above, economic impact metrics may help to illustrate the economic benefits created by the startups served by BAIs. In Ontario, government policy makers frequently ask for additional information to prove that these economic benefits were actually caused by the BAI's activities. The performance measurement framework includes a few qualitative questions designed to gauge the extent to which a startup may attribute its current and future success to the support it received from a BAI.

Using a five-point scale, startups are asked the following questions:

- “How likely is it that you would recommend [the BAI] to a friend or colleague?”
- “What impact has participating in [the BAI] had on your venture's chance of success?”
- “To what extent has participating in [the BAI] improved your likelihood of pursuing entrepreneurship in the future?”

These questions are useful indicators of the startup's perception of the value created by the BAI. However, they fall well short of proving empirical evidence that the economic benefits created by the startup are caused or even related to the BAI's activities.

5. Lessons Learned

Ultimately, a BAI performance management framework must meet the needs of its key stakeholders. However, to be effective, it must also create value and be efficient for the BAIs who are responsible for collecting data. The following section discusses the key lessons learned in the process of creating, implementing and refining the performance measurement framework for Ontario's campus-linked BAIs.

Lesson 1: Data is your currency.

The operating model for many BAIs relies in part on public funding from one or more levels of government, philanthropic foundations, or other sponsors. These stakeholders provide support for BAI operations in order to fulfill a certain economic or social policy mandate. The performance management framework is a vital tool for demonstrating to stakeholders that their policy objectives have been met. In that sense, the data collected using the framework should be considered an important form of currency for a BAI.

Key performance metrics are at the heart of a BAI's relationship with funders. In turn, collecting data on these metrics should be at the heart of a BAI's relationship with the startups they serve, with employees and volunteers, and with anyone involved in the BAI's operations. Startups in particular should be reminded frequently that, although they may not be required to pay money for many of the services provided by the BAI, these services are not free; they must pay with their data. This form of data-driven culture should be instilled throughout a BAI's operations and processes.

Lesson 2: Measure both BAI activities and startup outcomes.

Startup outcomes are an essential part of a BAI performance measurement framework. Startup outcome metrics enable the types of impact analyses discussed in Section 4.2, and other forms of econometric analysis. They can also be used to compare the performance of BAI supported startups with the performance of other startups in the general economy. This form of comparative analysis may provide evidence that startups supported by BAIs perform better than startups that are not. However, there may be several reasons for these differences that are unrelated to the support provided BAIs. For example, BAIs use selection criteria that are effective at identifying high-potential startups that would be successful in any case.

Therefore, measuring startup outcomes alone is not sufficient; key BAI activities should also be measured. This would allow a more comprehensive analysis of how these BAI activities are related to startup outcomes. BAIs could then provide better evidence to funders of how their activities have directly contributed to their policy objectives.

Lesson 3: Performance measurement is a two-way street.

The best BAI managers are hungry for feedback on their performance, on how they compare, on their strengths and core competencies, and what they need improve. The stakeholders responsible for the performance management framework should actively seek opportunities to use the data in ways that not only serve their own interests, but also give back important insights to the BAIs that collect the data.

In the absence of this type of direct feedback loop, BAIs may simply consider data collection as a cost rather than a value-added activity. This can have a hidden but insidious effect on the quality of the data collected using the performance management framework. BAIs are more likely to be diligent in the collection of data when they understand how it is used, when they benefit directly from its use, and when it is used to compare them with other BAIs.

Lesson 4: Data quality is a contact sport.

A performance management framework is only as good as the data it collects. The stakeholders responsible for the framework should work closely with BAI managers to safeguard the validity and reliability of the data collected. Care must be taken to ensure that the data collected for each metric is consistent with what the metric is claiming to measure. The data collected must also be consistent across BAIs and over time.

Comprehensive definitions for each metric within the framework can be helpful but are insufficient. Even the most carefully crafted definitions can be open to interpretation. In practice, metrics definitions are not frequently referenced during the routine collection of data. Over time, the interpretation of certain metrics, the type of data collected, or method of data collection may change in undesirable ways. Something as simple as a change in the personnel responsible for data collection can have an unintended impact on data quality. Stakeholders should actively monitor data quality, and be in constant communication with those responsible for data collection on the ground.

Lesson 5: Less is more.

As discussed in Section 4.1, there is the temptation when creating a performance measurement framework to “count everything that is countable”. That temptation should be resisted. The metrics in the framework should be useful for the periodic evaluation of BAI activities and the assessment of startup performance based on the stakeholders’ goals and objectives. Invest the time up front to determine how each metric in the performance measurement framework would be used in practice. If the utility of a metric is unclear or in question, it should be excluded from the framework.

Lesson 6: You get what you measure.

In addition to those described above, another important use for a performance measurement framework is as an incentive system. Over time, BAIs will tend to perform more of the activities that are measured. Therefore, the framework can be used to encourage certain activities that are deemed important.

This has two notable implications for the stakeholders responsible for the performance measurement framework. First, it becomes even more important in this context to measure only the things that matter most, and not to measure inconsequential things that could encourage undesirable behaviour. Second, since even the most carefully crafted metrics definitions can be open to interpretation, it should be expected that the most important metrics may be interpreted by each BAI in a way that casts their activities in the most favourable light possible.

References

- The Centre for Digital Entrepreneurship and Economic Performance, "Evaluating business acceleration and incubation in Canada: policy, practice and impact" (2015)
- Dalziel, M., "A study of business incubators and business accelerators in Canada", *The evidence network* (2012)
- Joseph, R. L., Bordt, M., & Hamdani, D., "Characteristics of Business Incubation in Canada, 2005" Statistics Canada, Science, Innovation and Electronic Information Division (2006)
- Lubik, S., "Performance Measurement in University Incubation: Review and Recommendations for Future Work" In I. I. N. o. Canada (Ed.), *I-INC White Paper Series* (2006)
- Valliere, D., Nicholls-Dixon, Charlene, "Business Incubation Activity at Ryerson University" *Entrepreneurship Research Institute, Ted Rogers School of Management, Ryerson University* (2017)
- Wise, S., & Valliere, D., "The Impact on Management Experience on the Performance of Start-Ups within Accelerators" *The Journal of Private Equity*, 18(1), 9-19,16 (2014)