AN ANALYSIS OF THE DIFFERENTIATION STRATEGIES OF RURAL FOUNDRIES AT THE BEGINNING OF THE 20TH CENTURY IN THE PROVINCE OF QUEBEC

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The business model and strategic position of Quebec's rural foundries at the beginning of the 20th century is virtually unknown. Inferences have been made based on pictorial and oral data sources. This data reveals that successful rural foundries were, in essence, confined to producing and selling agricultural tools to local farmers on an as-needed basis, because large urban foundries were already mass-producing domestic and industrial objects. In contrast, use of detailed accounting records and advertising publications of three rural foundries over the 1900 to 1914 period provides a clearer picture of the production and of the clientele of those rural foundries. Analysis of these sources suggests that the strategic business model of rural foundries was much more elaborate than the existing literature posits. Rural owner-managers of the early 20th century were sophisticated strategists, marketers, and operators.

During the 19th century, the Canadian economic landscape changed with the rise of industrialization. The development of mechanization and of mass production in large factories led to new and cheaper products which, in turn, led to the fall of several smaller and less sophisticated enterprises. However, a number of small enterprises not only survived but thrived through the beginning of the 20th century and beyond. In this paper we examine a sample of three such enterprises, rural foundries of the greater Quebec City area from 1900 to 1914. The literature on the causes for success of Canadian rural foundries at the time is very limited. Inferences based on pictorial and oral data sources have been made. This data reveals that the successful ones were, in essence, confined to producing and selling agricultural tools to local farmers on an as-needed basis because large urban foundries were already mass-producing domestic and industrial objects. Yet, the limitations inherent to the underlying data sources leave numerous plausible alternative realities.

This paper sets out to demonstrate that rural foundries were not anachronisms in the Canadian industrial landscape at the beginning of the 20th century and that their blossoming was, at least in part, due to a well devised business strategy. Canadian literature is practically non-existent regarding the strategic orientation of rural foundries at the time. Existing studies of rural Canadian foundries contain a limited number of reports detailing their product ranges, production techniques, or linkages with their communities.[1] The literature focuses rather on urban foundries and workers,[2] iron and steel industries,[3] and forges.[4] Literature on the history of small Canadian enterprises is also limited. These enterprises are generally examined aggregately, in broad surveys of economic and business history.[5]

The American and English literature provides richer hints regarding the historical role and business strategies of small enterprises at the turn of the 20th century. In the United States, with the rise of industrialization, non-mechanized small firms in the metal industry persisted, contributing to the industrial development despite the growing number of larger mechanized ones.[6] Small firms were able to adapt to changing market conditions by identifying and satisfying forsaken "market niches".[7] Further, they developed differentiated products and services, as well as a reputation for product diversity and production flexibility.[8] Larger specialized firms were less flexible because machines and work methods were harder to modify economically.[9] In England, craft products continued to be made profitably by small firms. Due to the high precision of manual work required for larger custom products, these also proved to be profitable as their quality surpassed successive technological developments.[10]

Small firms were far from ignorant of the threat of mass-production, as evidenced by their focus on improving tools and techniques even without mechanization.[11] Artisans also capitalized on their competitive advantages, such as their ability to deliver greater product quality and originality, while mechanized firms' workers were increasingly limited to performing specific tasks.[12] The US and UK literature suggests that successful small firms may have adopted what Porter labels a differentiation strategy, perhaps coupled with a focus strategy (also referred to as market-niche strategy).[13]

Porter has identified three basic strategic business models: *cost leadership, differentiation, and focus.*[14] *Cost leadership* refers to enterprises aiming to achieve the lowest production and distribution costs. Firms pursuing this strategy usually rely less on marketing and thus, are vulnerable to rivals emerging with lower cost structures. *A differentiation* strategy concentrates on delivering goods and services with unique attributes that customers value more than those of competitors. Finally, a *focus* strategy provides goods and services to narrow market segments. Once focused firms develop thorough knowledge of a target segment, they may pursue either cost leadership or differentiation within that segment. The pursuit of a generic strategy leads to distinctive productions and clienteles:

Table 1. Porter's Generic Strategic Models

Strategy	Production Characteristics	Clientele Characteristics
Cost Leadership	- Low cost - High volume - Standardized - Basic, no-frills	- Large customer base
Differentiation	- Unique, or high quality - High cost - Creative, elaborate design	- Specific customers
Focus (or Niche Strategy)	- Tailored, made-to-measure	- Few specialized segments

Source: M. E. Porter, *Competitive Strategy: Techniques for Analyzing Industries and Competitors* 1980.

Porter argued that most firms pursue one of the three strategies to succeed while a median position can lead to poor results. However, Miller[15] revealed that viable grounds could exist between the three. In this paper, we argue and support empirically that Quebec's rural foundries developed specific strategies consistent with Porter's model. Our data sources allow for an analysis of rural foundries' strategies through two lenses: product line and clientele.

To the best of our knowledge, this is the first inquiry about the business strategy of Canadian rural foundries at the beginning of the 20th century. It is also the first study of these foundries relying on financial records and on advertisings as primary data sources. Existing studies relied mainly on pictures and interviews or descriptions of production techniques. Third, our study innovates methodologically by assessing the strategic direction of the foundries from two angles: production and clientele. In addition, to support the robustness of our results, we use a primary sample of three rural foundries instead of only one. We also use a reference sample of urban foundries to rule out alternative interpretations of our findings. Globally, this paper fills a literature void regarding the strategic business model of small rural foundries populating the Canadian industrial landscape at the beginning of the 20th century and their contribution to the economy.

Data relies on a sample of three rural foundries from the greater Quebec City area at the beginning of the 20th century: St.Anselme in St.Anselme (1829-1998), Bernier & Bernier in Lotbinière (1850-1925), and Bélanger in Montmagny (1871-1982). These foundries were selected based on the following criteria: rural location, accessibility to archival data within the 1900-1914 period, and lifespan of over 50 years. We include urban foundries based in Eastern Canada as a reference sample: F.X. Drolet (Quebec City), Terreau & Racine (Quebec City), P.T. Légaré (Quebec City), C.H. Lepage (Quebec City), McClary (London, Ontario), Gurney-Massey (Toronto, Ontario), Clenndinning & Son (Montreal, Quebec), and Findlay (Carleton Place, Ontario).

Several sources of data support our analyses of the foundries' activities at the beginning of the 20th century, as outlined in Table 2:

Table 2. Data Sources

Foundries	General Ledgers	Invoices	Catalogues/ Pictures	Newspaper Advertising	Patent	Interviews	Notarial Deeds
Bernier&Bernier	X		X		X	X	
St.Anselme	X		X			X	X
Bélanger		X	X	X		X	
Urban Foundries (8)	X*		X	X			

* F.X Drolet only

We built, from the general ledger of Bernier and St.Anselme, a database totalling over 17,000 sales transactions (items sold, prices, buyers, buyers' location, and number of items sold). We also compiled 3,225 English and French advertisements published in twenty five different Quebec and Ontario newspapers during the studied period. Advertisements marketed stoves, agricultural tools, school furniture, fences, mortuary monuments, and hardware. Invoices, catalogues, patents, and interviews with historians, collectors, former owners and their descendants, as well as restorers were used to complete the analysis of production and clienteles mainly for Bélanger for which access was blocked to extensive general ledgers data. Notarial deeds were examined for St.Anselme because they contained product range information. Historical directories identify the clients' main activities.

In the following sections, we assess the strategic model of rural foundries with an examination of their production and clientele and attempt to determine, through the examination of their business activities, whether or not rural foundries have prioritized one of the three strategies described in Table 1.

Bernier & Bernier

Table 3 shows that Bernier & Bernier's production was mainly that of stoves and furnaces (domestic and commercial), representing on average sixty five percent of sales between 1900 and 1913. In that segment, Bernier had three specific lines: a relatively wide variety of small and medium stoves, a limited number of luxury ones, and a line of commercial stoves and furnaces.

Small and medium stoves and furnaces represent eighty eight percent of all stove and furnace sales. They were sold in large volume, with volume rebates, to merchants and to urban foundries of various sizes. Our examination of pictures, catalogues, and industry reports[16] reveals that urban foundries, containing many of Bernier's clients, did not produce a variety of stoves as large as that of Bernier. Every year, the same clients were buying the same models in large volumes from Bernier. This suggests that it was more profitable for larger foundries to specialize in larger fancy stoves, and for smaller urban foundries producing fewer models, to improve the range of products offered to their clientele by buying from Bernier rather than by producing themselves. We conclude that Bernier was able to differentiate its production by proposing a variety of stoves with distinctive options to address the needs of urban foundries wishing to expand their stoves and furnaces product range without having to modify their core production.

Table 3. Annual Sales in Dollars per Product Category, Bernier & Bernier Foundry, 1900-1914

	Domestic goods		Stoves & Furnaces		Agricultural Tools		Religious Goods		School Equipments		Hardware		Total Annual
1900	$398	5%	$ 7,566	85%	$776	9%	$0	0%	$0	0%	$187	2%	$8,927
1901	370	4%	7,022	83%	708	8%	100	1%	1	0%	253	3%	8,454
1902	310	4%	5,896	76%	648	8%	0	0%	624	8%	298	4%	7,776
1903	420	4%	8,040	72%	1,150	10%	1	0%	837	7%	740	7%	11,191
1904	440	4%	8,294	72%	787	7%	60	1%	1,125	10%	835	7%	11,538
1905	370	3%	6,952	68%	968	9%	0	0%	1,329	13%	589	6%	10,203
1906	220	3%	4,233	55%	950	12%	2	0%	1,548	20%	743	10%	7,699
1907	260	3%	4,913	56%	821	9%	0	0%	2,399	28%	323	4%	8,716
1908	270	3%	5,043	56%	451	5%	0	0%	2,688	30%	621	7%	9,068
1909	300	4%	5,699	67%	426	5%	5	0%	1,489	18%	534	6%	8,452
1910	240	3%	4,601	64%	468	7%	0	0%	1,473	20%	412	6%	7,196
1911	250	3%	4,706	58%	493	6%	12	0%	1,947	24%	748	9%	8,153
1912	270	3%	5,194	62%	274	3%	0	0%	1,701	20%	924	11%	8,366
1913	270	3%	5,110	64%	196	2%	0	0%	1,045	13%	1,349	17%	7,969
1914	100	2%	1,872	39%	380	8%	7	0%	1,061	22%	1,378	29%	4,796
TOTAL	**$4,392**	**3%**	**$85,141**	**65%**	**$9,494**	**7%**	**$187**	**0%**	**$19,267**	**16%**	**$9,946**	**9%**	**$128,504**

Source: *General Ledgers*, Bernier & Bernier Foundry, 1900-1914.

An examination of Bernier's clientele further confirms a focus on merchants' needs as depicted in Table 4.

Table 5 reveals that sales to merchants were mainly made, in fairly similar proportions, to general merchants, retailers, and wholesalers until 1906. Sales to foundries were more modest but still reflective of stable business relationships. Bernier & Bernier sold primarily small and medium stoves and furnaces to merchants and to urban foundries of various sizes across the provinces of Quebec and Ontario as illustrated in Table 6. More specifically, Bernier had strong sales in Montreal, Three-Rivers, Quebec City, Ottawa and London (Ontario), in addition to its immediate neighborhood.

Commercial stoves and furnaces represented seven percent of the stove and furnace revenues with a clientele mainly concentrated in the greater Quebec City area. Bernier's production flexibility allowed for tailored products responding to a demand in a business segment almost untouched by larger foundries. Indeed, our comparison with larger urban foundries' production based on catalogues, general ledgers and industry reports reveals that Bernier was almost entirely alone in this market in the Quebec City area. From both the product and clientele perspective, our analyses suggest that Bernier developed a niche in stoves and furnaces for commercial buildings.

Table 4. Annual Sales per Client Category, Bernier & Bernier Foundry, 1900-1914

Individuals		Merchants		Manufactures & Contractors		Religious Community		State & Public Sector		TOTAL
$714	8%	$8,090	91%	$119	1%	$4	0%	$0	0%	$8,927
604	7%	7,596	90%	113	1%	130	2%	11	0%	8,454
416	5%	6,552	84%	112	1%	59	1%	636	8%	7,776
905	8%	9,100	81%	343	3%	172	2%	671	6%	11,191
771	7%	9,436	82%	300	3%	332	3%	696	6%	11,538
668	7%	7,766	76%	562	6%	214	2%	993	10%	10,203
891	12%	4,055	53%	1,483	19%	80	1%	1,190	15%	7,699
550	6%	4,263	49%	1,822	21%	119	1%	1,962	23%	8,716
484	5%	4,313	48%	1,622	18%	206	2%	2,444	27%	9,068
385	5%	4,393	52%	2,346	28%	186	2%	1,143	14%	8,452
318	4%	3,695	51%	1,796	25%	86	1%	1,302	18%	7,196
396	5%	3,915	48%	2,083	26%	109	1%	1,651	20%	8,153
186	2%	5,090	61%	1,457	17%	195	2%	1,437	17%	8,366
243	3%	5,997	75%	674	8%	220	3%	836	10%	7,969
381	8%	3,234	67%	86	2%	255	5%	839	17%	4,796

Source: *General Ledgers*, Bernier & Bernier Foundry, 1900-1914.

Sales of large luxury stoves represented only five percent of stoves and furnaces sales. Bernier's leading model, the *Bijou*, emphasised quality and customization, as recorded in the general ledgers. Each "*Bijou*" was a work of art.[17] Bernier patented this and other stoves, which attests to the creativity of its production.[18] Our analysis reveals a progressive decline in Bernier's production of *Bijou* at the turn of the 20th century. Reasons could be twofold. On the one hand, competition was intense in the large stove market and could have led to the decline. On the other hand, Bernier could have strategically decided to concentrate its resources on other more profitable products. Further examination reveals that around that time competitor Bélanger acquired the rights from Bernier to produce the *Bijou*. This makes the latter explanation more plausible because it shows that clients were still interested in the *Bijou*.

Additional indications of Bernier's strategy are found in sales of school equipment (Table 3), representing more than twenty percent of total annual sales after 1906 (except for 1913). The clientele for school equipment—Public Sector and the State in Table 4—was formed of school boards, 110 in total across the Quebec province.[19] This tends to confirm a focus on non-individual customers. It also proposes the advantage that Bernier & Bernier's clever owner took when considering the coincidental multiplication of schools and churches which followed an increase in the urban population, the birth of new rural villages, and a general effort by the province and church to increase the level of education.[20]

Table 5. Annual Sales: Detailed Breakdown of the Merchants Client Category, Bernier & Bernier Foundry, 1900-1914

	MERCHANTS				FOUNDRIES
	General Merchants	Retailers	Wholesalers	Hardware Dealers	
1900	$1,748	$2,891	$2,304	$109	$1,038
1901	2,029	3,057	1,698	77	735
1902	2,180	1,515	2,184	222	451
1903	3,195	2,795	2,172	522	416
1904	3,486	2,812	2,375	405	358
1905	3,023	1,937	2,036	322	448
1906	1,982	844	521	355	353
1907	1,920	831	971	166	375
1908	1,352	674	1,339	416	532
1909	1,228	889	853	308	1,115
1910	1,305	702	700	314	674
1911	1,042	548	713	537	1,075
1912	851	723	1,029	861	1,626
1913	987	220	847	1,212	2,731
1914	513	279	1,023	1,297	122

Source: *General Ledgers*, Bernier & Bernier Foundry, 1900-1914.

Table 6. Annual Sales in Dollars per Region, Bernier & Bernier Foundry, 1900-1914

Administratives Areas/ Years	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914
Province of Quebec															
Quebec City (03)	27%	31%	43%	43%	46%	38%	31%	20%	26%	37%	44%	40%	47%	68%	34%
Montreal (06)	29	28	22	16	16	15	15	14	20	20	14	13	14	14	28
Chaudiere-Appalaches (12)	11	5	12	15	13	25	22	28	27	11	12	16	12	4	10
Lower St-Laurent (01)	1	0	1	1	1	2	4	3	3	4	20	9	20	1	6
Laurentides (15)	4	3	6	4	4	2	1	2	2	3	0	1	0	0	0
Monteregie (16)	15	9	2	1	3	1	2	2	3	3	3	11	3	5	1
Rest of Quebec Province	7	16	11	11	13	7	15	24	10	17	4	7	5	1	7
Province of Ontario	8	8	6	6	0	5	1	0	1	2	2	1	7	6	14

Source: *General Ledgers*, Bernier & Bernier Foundry, 1900-1914.

Our comparison with other foundries, rural and urban, demonstrates that Bernier was virtually alone in that market. We conclude that Bernier developed a niche with the production of school equipment targeting the specific clientele of school boards across the Quebec province.

Our interviews,[21] as well as findings from Roch Samson's article,[22] provide additional hints about Bernier's capacity to develop business. Henri Bernier, the former owner, took advantage of his reputation as a businessman in the sector of transportation by boat on the St.Lawrence River to expand his foundry's business. His naval business was developed in conjunction with parallel with the foundry in the second half of the 19th century and allowed Bernier to build a strong network of relationships with merchants and foundries in urban centers of the Quebec and Ontario provinces. Although Bernier died in 1893, leaving the businesses to his three sons, our analysis suggests that those already existing relationships contributed to the foundry's ability to widely distribute small and medium stoves and furnaces. In addition, Henri Bernier's status as a member of the Canadian Parliament between 1874 and 1878 could have generated the appropriate network to expand in school equipment production.

Revenues for agricultural tools were ten times lower than revenues generated by stoves and furnaces as shown in Table 3. In contrast with the existing literature, this suggests that Bernier & Bernier was not focused on this production. Moreover, starting in 1904 with the entrance of large competitors in the market, such as Massey-Harris (Toronto), Frost & Wood (Quebec) and La Compagnie Manufacturière (Quebec), Bernier gradually reduced its production to continue to serve only local farmers as well as a few nearby and long-time clients.

Finally, revenues from hardware are fluctuant and reflect an as-needed production while the religious goods category is negligible, produced only on special orders. However, the presence of those products outlines Bernier's production flexibility.

Overall, our analysis suggests that Bernier found a viable ground by combining two of Porter's three generic strategies.[23] On one hand, with the small and medium stoves and furnaces, Bernier deployed a differentiation strategy of offering a wide and customizable variety of models, reaching a specific clientele consisted of merchants and urban foundries. On the other hand, Bernier developed a focus strategy (niches) for commercial stoves and furnaces and for school equipment, targeting respectively commercial buildings of the Quebec City area and school boards across the province. Furthermore, our analysis suggests that the important network of Bernier's owner as a businessman and politician contributed to the development and expansion of his foundry. Finally, Bernier's production flexibility allowed the foundry to customize products and to respond to special orders.

St.Anselme

In this section we similarly review St.Anselme's set of general ledgers from 1910 to 1914 to assess the strategic orientation of the St.Anselme and analyze its production and clientele. We complete our analysis with catalogues, interviews, and notarial deeds.

Our analysis of St.Anselme's production shows a very different scenario than that of Bernier. The machineries segment represents, on average, fifty one percent of total annual sales (refer to Table 7) and is specifically composed of equipments for sawmills and planer mills, a sector in rapid expansion at that time.[24] Machinery was tailored to buyers' needs which varied according to mill size. The set-up was also performed by St.Anselme's skilled workers, as evidenced by revenues from machinery installation and maintenance services recorded in the foundry's general journal.

Table 7. Annual Sales in Dollars per Product Category, St.Anselme Foundry, 1910 (Nov.-Dec.) to 1914

	Domestic goods		Agricultural Tools		Religious Goods		Machineries		Machineries Parts		Hardware		Total Annual
1910*	$5	0%	$5	0%	$0	0%	$814	50%	$298	14%	$489	30%	$1,623
1911	129	1%	207	2%	10	0%	4,487	51%	835	10%	2,779	32%	8,716
1912	90	1%	63	1%	0	0%	4,726	44%	1,247	11%	3,387	31%	10,848
1913	56	0%	96	1%	2	0%	5,243	47%	1,162	10%	4,181	37%	11,166
1914	78	0%	101	1%	2	0%	10,451	64%	1,824	11%	2,697	17%	16,296
TOTAL	$358	0%	$472	1%	$14	0%	$25,721	51%	$5,366	11%	$13,533	29%	$48,851

* November and December only

Source: *General Ledgers*, St.Anselme Foundry, 1910 (Nov.-Dec.) to 1914.

An examination of St.Anselme's clientele further confirms a focus on the needs of enterprises from which the foundry obtains over seventy five percent of its revenues, as shown in Table 8. Table 9 demonstrates that eighty four percent of sales in that category were made to the forestry industry, mostly sawmills and planer mills concentrated in the greater Quebec City area (Table 10).

Table 8. Annual Sales per Client Category, St.Anselme Foundry, 1910 (Nov.-Dec.) to 1914

	Individuals		Merchants		Enterprises		Religious Community		State & Public Sector		TOTAL
1910*	$ 53	3%	$ 175	11%	$ 1,386	85%	$ 9	1%	$ 0	0%	$ 1,623
1911	541	6	1,289	15	6,874	79	12	0	0	0	8,716
1912	641	6	424	4	9,700	89	46	0	37	0	10,848
1913	849	10	289	4	9,881	84	54	1	94	1	11,166
1914	1,013	6	265	2	14,270	88	36	0	713	4	16,296

* November and December only

Source: *General Ledgers*, St. Anselme Foundry, 1910 (Nov.-Dec.) to 1914

Our comparison with other foundries further reveals that St.Anselme was nearly alone in that rapidly expanding market of sales to planer mills and sawmills, sharing it only with the Plessiville Foundry (also known as Forrano) located in the Quebec City region. Forrano's market was large, covering many geographic areas inside and outside the Quebec province while St.Anselme, as mentioned earlier, mainly supplied the increasing demand in the greater Quebec City area composed of regions 03 and 12. However, St.Anselme's sales were not completely limited to those regions, as shown in Table 10. Interviews[25] reveal that marketing was made across the province of Quebec by sending

English and French catalogues directly to businesses. In addition, promotional trips were frequently made by St. Anselme's owner.

Table 9. Annual Sales: Detailed Breakdown of the Merchants and Enterprises Client Categories, St.Anselme Foundry, 1910 (Nov.-Dec.) to 1914

	MERCHANTS			ENTERPRISES				
	General Merchants	Wholesalers	Hardware Dealers	Manufactures	Mills	Sawmills	Planner Mills	Contractors
1910*	$ 53	$ 0	$ 122	$ 3	$28	$ 873	$ 101	$ 381
1911	70	19	1,199	437	962	4,294	66	1,115
1912	74	15	335	37	211	5,933	943	2,577
1913	47	10	232	383	31	7,559	1,715	193
1914	151	20	94	57	797	12,364	328	723

* November and December only
Source: *General Ledgers*, St. Anselme Foundry, 1910 (Nov.-Dec.) to 1914.

Table 10. Annual Sales in Dollars per Region, St. Anselme Foundry, 1910 (Nov.-Dec.) to 1914

Administratives Areas/Years	1910*	1911	1912	1913	1914
Lower St. Lawrence(01)	0%	0%	0%	4%	6%
Quebec City (03)	11	13	30	1	0
Estrie (05)	1	11	4	19	1
Chaudiere-Appalaches (12)	59	55	60	74	92
Lanaudière (14)	17	1	2	0	0
Center of Quebec (17)	13	21	3	2	0

* November and December only
Source: *General Ledgers*, St. Anselme Foundry, 1910 (Nov.-Dec.) to 1914.

Notarial deeds, interviews and findings from Ernest Arsenault[26] give further indications of a strategy of serving the forestry industry. These sources reveal that the origin of St.Anselme's investors could have influenced its development. At many points in time, the St.Anselme foundry benefited from investments of wealthy merchants and businessmen.[27] Between 1900 and 1914, St.Anselme was financed by M. Charles Audet, a rich merchant from the region and by M. Atkinson, a businessman involved in the forestry industry, a link which may have presented opportunities.[28] By 1910, a group of businessmen from the region, including some involved in the forestry industry, acquired the foundry, keeping the same manager. The new owners decided to concentrate the production on sawmills equipment, targeting principally the greater Quebec City area (regions 03 and 12).

Table 7 also shows that sales of hardware represent twenty nine percent of revenues while sales of machinery parts rank third with an average of eleven percent of total annual sales. Agricultural tools accounted for a very small percentage of annual sales, fifty times smaller than that of machineries, contrasting with the suggested importance of this production in the existing literature. The clientele analysis (Table 8) corroborates those results as revenues from individuals, mainly local farmers, are minimal. Sales of domestic goods are similar to those of agricultural tools, in response to modest local demand. Sales of religious goods are negligible and reflect special orders only. The presence of those products confirms, nevertheless, as for Bernier, the foundry's flexibility.

Overall, the analysis under both, production and clientele lenses, suggests that St.Anselme developed a market niche in the production of sawmills and planer mills equipment consistent with Porter's focused differentiation strategy.[29] Further, the foundry benefited, financially and strategically, from the support of investors aware of opportunities in the forestry industry. Finally, St.Anselme's production flexibility allowed it to respond to local needs and special orders.

Bélanger

In this section, we assess the strategic orientation of the Bélanger foundry and analyze its production and clientele. The analysis is not as extensive as those for Bernier and St.Anselme given that general ledgers were unavailable. Our primary data source is Bélanger's advertisings published in English and French newspapers from 1900 to 1914. We complete our analysis with invoices, catalogues/pictures, and interviews.

During our scan of daily advertising in twenty different newspapers, we found 1,645 ads published by Bélanger. Of those, sixty six percent promoted domestic goods (mainly large stoves and decorative furnaces), twenty eight percent agricultural tools, six percent religious goods, and one percent hardware.

Our examination reveals that after 1907 advertising for domestic goods increased while advertising for agricultural tools declined. Specialization in agricultural tools established Bélanger's reputation during the second part of the 19th century.[30] However, with the rise of larger competitors in that business segment, such as La Compagnie Manufacturière of Montmagny and Massey-Harris, Bélanger's former owner gave a new orientation to the company by expanding into stoves in 1905.[31] Agricultural tools were no longer a source of growth, but Bélanger continued to produce them, riding on a well established reputation. Production of large stoves and decorative furnaces became Bélanger's main specialization at the turn of the 20th century,[32] although competition in that market was intense.[33]

As opposed to urban foundries of various sizes, Bélanger had the flexibility to tailor stoves to clients' needs beyond the many options already available. Small urban foundries, mainly owned by merchants and retailers, had a limited and less flexible production of fewer models of stoves. For instance, P.T. Légaré, a well-known merchant of Quebec City, produced only two models: *The Légaré* and *The Majesty*. Terreau & Racine produced two-level deck stoves. Eusèbe Picard produced *The Econome* and C.H. Lepage *le Grand Feu, Royal Montana*, and *Laurentien*, which were close imitations of Bélanger's most famous stoves. Larger mechanized foundries had a range of standardized models that they never altered for at least two reasons. First, they were unable to modify production cheaply. Once a model was changed, the oldest one was no longer available, as opposed to Bélanger, where the catalogues demonstrate that new and old models (which were less costly) were available. Second, mechanized foundries used the division of work, while Bélanger's craftsmen had the latitude to propose and create models, and had control over the complete production process. Consequently, products were distinctive, tailored, and of high quality.

Table 11. Bélanger Advertisings- Selected Examples

Stoves	Advertisings
Alaska – two level deck stove	"We have four completely new designs, Nickelated panels, Sectional rings Overs, Alaska nickel plated trimmings." (*Sherbrooke Daily Record*, November 1905)
Bélanger	"Because they are specially built for the climate of the Province of Quebec. Because our models differ entirely from those of American foundries..." (*Sherbrooke Daily Record*, October 1912)
Prince Crawford	"With or without thin lined Copper Reservoir, Heat indicator, Nickel Steel Edges, Polished tops easily kept clean." (*Sherbrooke Daily Record*, July 1906)
Royal	"It is not a copy..." (Le Peuple de Montmagny, November 1910)

A further indication of Bélanger's dedication to distinctiveness is found in the owner's frequent travels. Our interviews with restorers[34] of Bélanger stoves and with collectors[35] revealed that Bélanger's owner traveled regularly to the United States and to Europe to stay aware of the newest technologies and fashion trends by visiting other foundries and collecting their catalogues. He then communicated his findings to Bélanger's artisans, who used those insights in the creation of new models or in the updating of already existing ones, as confirmed by restorers.

Bélanger's numerous advertisings in catalogues and in over twenty five English and French different newspapers across the Quebec and Ontario provinces, suggest that, as opposed to Bernier and St.Anselme, the foundry primarily targeted individual clients primarily. More specifically, advertising for stoves and furnaces targeted the housewives of the middle and upper classes of Quebec and Ontario. Further, a network of agents (merchants) contributed to Bélanger's expansion by advertising and selling Bélanger's products. Our discussions with collectors[36] and restorers[37] also suggest that Bélanger's clientele was well established throughout Canada with clients located as far away as Vancouver and Europe.

Additional analysis of advertisings suggests that Bélanger developed a specialization in customized ornamental products (mortuary crosses, stairs, cemetery and balcony fences), principally marketed in the greater Quebec City area. Bélanger was virtually alone in that market.

Overall, our analysis suggests that Bélanger implemented a differentiation strategy as described by Porter.[38] Bélanger produced high-quality hand-made stoves, regular and luxury, and decorative furnaces in a wide variety of models and options targeting mainly middle and upper class people located across the Quebec province and other parts of Canada. More particularly, with its production flexibility, Bélanger was able to customize products to clients' desires. Production was not limited to specific and standardized models typical of larger mechanized foundries and smaller urban ones. Bélanger's production flexibility also allowed the foundry to respond to various local needs, representing additional, albeit minimal, revenue. The market niche in the production of ornamental products is to be mentioned despite modest revenues because it outlines Bélanger's aptitude to identify opportunities and meet the demand.

Our analysis of advertising also exposed Bélanger's large market beyond its immediate region. The frequency of advertisements in different newspapers, the publication of catalogues yearly, as well as the use of agents and vendors across the province, suggest that Bélanger developed a fine marketing strategy similar to that of the large mechanized foundries. The analysis of the production and clientele of three rural foundries of the greater Quebec City area at the beginning of the 20th century suggests that all three developed a generic strategy along Porter's model:[39] either differentiation or a combination of differentiation and focused differentiation (niche). Although they were not mechanized, rural foundries were able to develop specialities, market niches, in some cases, and to fill market voids.

Each foundry engaged in a different market position. Bernier specialized in small and medium stoves available in a large variety of models and options sold to merchants and larger foundries across the Quebec province and in Ontario. Bernier also developed two niches: one for school equipment targeting school boards across Quebec province, and one for stoves and furnaces for commercial buildings of the Quebec City area. St.Anselme filled a niche specializing in machineries for sawmills and planer mills, a sector where competition was limited, concentrating on the greater Quebec City area. Bélanger developed a speciality in producing stoves and decorative furnaces in a wide variety of models and options sold across the Quebec province and largely outside as well. Bélanger further differentiated with its capacity to tailor products at clients' will. In contrast with output from mechanized production, Bélanger's products were customizable and of high hand-made quality. Finally, Bélanger found a niche in ornamental products, a narrow segment for which the foundry advertised in the greater Quebec City area.

The analysis also reveals strategic elements that our three rural foundries had in common. First, they took advantage of their production flexibility to add variations to their product lines and to respond to local needs and special orders. Flexibility was not economically viable for larger mechanized foundries or small urban ones. Second, rural foundries could rely on skilled workers that had the latitude to control the whole production process and ensure high quality and distinctive products.

This study documents three facts that were unknown in the literature on Canadian rural foundries. First, the analysis confirms that their production was not limited to agricultural tools and other locally needed goods as the existing literature posits. Second, rural foundries were not limiting sales to their immediate region. Third, rural owner-managers were actively seeking business and were able to take advantage of their personal relationships to prosper.

Globally, our study suggests that rural owner-managers had sophisticated business strategies in place to which they owe part of their success. They were able to identify and take advantage of market opportunities and differentiate themselves. We conclude that rural owner-managers of the early 20th century were sophisticated strategists, marketers, and operators.

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