COMMUNITY AND HOUSING DEVELOPMENT IN NORTHERN ONTARIO CITIES AND TOWNS



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LAND ACKNOWLEDGEMENT

We would like to acknowledge that the lands that our team works, lives and plays is on the ancestral and traditional territories of the Mississaugas of the Credit, the Haudenosaunee, the Anishinaabe, and the Huron-Wendat, and we also acknowledge the unceded territory of the Kanien'keha:ka, in which one of our team members lives and creates.

We encourage you to acknowledge the land in which you live on, as well.

THEIA CONSULTING



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GLOSSARY

Affordability: In this report, we focus on how Moonbeam's home options would be more affordable than the Southern Ontario market.

Business model innovation: Using competitors' advantage and creating value to make changes in the business model and structure of the organization (Landry, 2020).

Co-creation: A process that includes stakeholders outside of the business in the ideation and development process. It provides the areas for collaboration and gathering new and fresh ideas with diverse people and experiences.

Co-destruction: A process that breaks down communication, participation, and creativity of co-creation and breeds tension and conflict, making it difficult to develop a common value, product, or service.

Children's Fire: This Indigenous way of knowing focuses on the commitment of considering the wellbeing and the impact of our decisions

on children, species, and all life. In the exercise in a boardroom, a seat is left empty for the children to be able to be a part of the decision-making process (The Children's Fire, n.d.).

Doblin's 10 Innovation Strategies: A tool that allows you to consider ten (i.e., product model, offering, brand, channel, customer engagement, etc.) key ways to innovate a product, service, or business.

Long termism: Focuses on how decisions provide value (or destruction) in the long term. Many of the questions to ask oneself are: what is the legacy of my decision? Would people consider these actions to be good, beneficial, will they hurt people?

Porter's Five Forces: Also known as the Competitive Forces model, focuses on understanding the competitive nature of an industry, while also testing the viability and profitability of a business in the competitive environment (Mind Tools, n.d.; Corporate Finance Institute,n.d.).

Seven generations principle: A

Haudenosaunee principle that focuses on thinking about the sustainability of the environment, people, and relationships, when making decisions. Ensuring that they are all sustained for seven generations in the future (Indigenous Corporate Training, 2020).

Sustainability: When we refer to sustainability, we are referring to both environmental sustainability and the durability of a home.

Tactical urbanism: Tactical urbanism is a low-cost, simple way to engage a community. It can be organized by citizens, organizations, or governments to increase social cohesion, promote neighbourhood awareness, or amplify other social goals. It is often short-term, public, and participatory. Examples include pedestrian days, pop-ups, or sidewalk chalk colouring (Tactical Urbanism, n.d.).

Thriving: For the purpose of this report we define thriving in the context of communities as being inclusive, safe, enriching, and sustainably growing over multiple generational timespans.

EXECUTIVE SUMMARY

MOONBEAM TRADING COMPANY TODAY

Moonbeam Trading Company is a multi-faceted enterprise with five distinct but interconnected business units; agri-foods, import and export, e-commerce, technology consulting, and its most recent - affordable housing development.

Currently, this project is in its initial phases, with the goal to build 200 homes in Northern Ontario by 2026. This initiative focuses on leveraging construction and architectural partners, Moonbeam's own data science team, and the import and export team, to help lower development costs to provide customers with low-cost, quality homes.

CURRENT CHALLENGES

Evaluating the risks associated with Moonbeam's current affordable home development business model in Northern Ontario highlighted five main challenges:

- Current state of housing and community development in Northern Ontario
- Limited quality infrastructure in Northern Ontario
- Costs of building elements, affordability, and COVID-19
- Building and developing relationships with existing communities while attracting newcomers
- Considerately and ethically launch a new venture with minimal risk

PROBLEM FRAMING

How might Moonbeam Trading Company sustainably and costeffectively develop long-term thriving communities in Northern Ontario?

INNOVATION STRATEGIES

Theia Consulting will highlight strategies to implement business model innovations to Moonbeam's Northern Ontario expansion plans to address the aforementioned challenges and enable Moonbeam to sustainably and cost-effectively develop long-term thriving communities in Northern Ontario.

This process begins with an assessment of Moonbeam Trading Company's core competencies and areas of concern within the context of Northern Ontario. Research into Northern Ontario communities, the Southern Ontario real estate market, and the emerging millennial homebuyer market revealed Ecoconscious millennials (26-36) are a promising customer segment due to their strong desire for affordable housing, sustainable lifestyles, and customizability.

Prior to designing innovations into Moonbeam's current business model, Theia formed two design criteria that any innovations must include:

- 1. Community and social change focus
- 2. Designing customer experience and clarifying the offer

Next, we developed an innovative business model - EcoLiving - around Moonbeam's value proposition. EcoLiving offers three key value propositions to the Eco-conscious millennial:

- 1. Affordability relative to the Southern Ontario market
- 2. Customizability
- 3. Sustainably developed

To address the design criteria, we've included strategic implementation plans for the branding and cocreation activities embedded within the EcoLiving model.

BRANDING STRATEGY OVERVIEW

- Moonhomes sub-brand: telling Moonbeam's story
- Smooth Rock Falls partnership: a community perspective
- Finding the right people

Milestones

- Hiring marketing agency for branding and internal marketing project manager. Marketing should start as early as possible to start building awareness, leads, and potentially pre-sales
- Creation of marketing assets (e.g., website, brand graphics, videos) and develop channels
- Partnership and co-branding with cities and towns like Smooth Rock Falls established
- Establish awareness with real estate organizations and amongst the target market
- The pipeline of leads across
 Canada
- Secure national and local media coverage
- First sale that can be used as a case study for future sales

CO-CREATION STRATEGY OVERVIEW

- Value co-creation and avoiding co-destruction
- Ensure multi-level access to cocreation and data collection
- Developing different facilitation methods

Milestones

- Creating or hiring a team for community engagement – this should include indigenous and non-indigenous urban planners, data analysts, a community liaison (i.e. civil servant) from the existing community, and facilitators
- Creating reporting and data system to help store information and later synthesize it
- Develop workshops and platform for community engagements
- Conduct diverse workshops and engagements with a diverse set of stakeholders
- Measuring community satisfaction of design plans

To ensure Moonbeam's development projects are in alignment with its sustainability goals, a high-level sustainability strategy highlights key initiatives and focus areas to enable a regenerative construction and development process.

SUSTAINABILITY STRATEGY OVERVIEW

- Giving back: corporate social responsibility
- Leading by example
- Building resilience

Milestones

- Moonbeam's data science team develops a carbon footprint tracking and impact measurement model and corresponding performance metrics.
- Introduce sustainability
 performance metrics in the
 approval process for all potential
 suppliers, contractors, and
 activities.
- Develop an eco-friendly housing model
- Reduce local supply chains in Moonhome communities.
- Commence reforestation initiative
- Build resilience into communities.

MOONBEAM TRADING COMPANY TOMORROW

These strategies will lead to:

- Community development and living
- Generational wealth and financial independence
- Local economic growth and local employment
- Ecological conservation and consideration





CONTEXT SETTING

In the last few years, Canada has undergone a housing crisis; with housing prices reaching unprecedented heights all over Canada, especially in urban areas in Southern Ontario, millennials are looking to settle elsewhere to build their lives.

During the COVID-19 global pandemic, the housing market skyrocketed – with the average home in Canada costing about \$716,828 as of April 2021 (Yun, 2021), a new national record. In urban areas like Toronto, these prices are significantly higher with the average home being priced at \$902,787 in 2020 to \$1,097,565 in 2021, leading Generation Z (Gen Zs) and millennials to believe they will never be able to own a home in their lifetimes (The Canadian Press, 2021; Flanagan, 2021). This has led many to migrate out of urban areas to purchase homes in remote and rural areas like Northern Ontario.

The housing crisis is not the only cause for Gen Zs and millennials to escape from urban living; in recent years, Gen Zs and millennials have been instrumental in the climate movement, looking to support brands and make lifestyle changes to help alleviate the climate crisis (Hassim, 2021). Thus, when millennials seek new homes and communities, they look for places that allow for a more ecofriendly lifestyle. For instance, greenspaces, environmentally sustainable homes,

and local farms and farmers' markets are key features in a new community. This has also led millennials to desire to live in cities and towns, and support brands that have bold and transformative leadership and willing to co-create with their residents to develop radical structural change (GlobeScan, 2020).

Housing costs, the push for eco-friendly and community lifestyles, and remote work have led many to desire to live in smaller communities in Northern Ontario.

These significant changes to the housing climate, changing social attitudes and behaviours, and the option for remote work due to the global pandemic, have surged the attraction of millennials to Northern Ontario and have led municipalities to respond accordingly. Hoping to fill the gap, Moonbeam Trading Company (Moonbeam) has planned to build affordable and eco-sustainable homes, while providing value to Northern Ontario cities and towns.

In this report, we present a comprehensive business model and strategies to guide Moonbeam to its desired future and goals of building affordable homes in the region. Through business model innovation, strategic thinking, and futures thinking methods, we have investigated key challenges, risks, different customer segments, and developed a robust strategic plan to attend to these different considerations.



SITUATIONAL ANALYSIS

To best advise Moonbeam, we conducted an internal analysis — investigating the current operational structure, the different business units, and the current business model for Moonbeam's construction and housing development business unit. We also conducted an external analysis using Porter's Five Forces to understand the housing development industry and the distinct value Moonbeam brings to the market.

CURRENT STATE

Moonbeam is a multi-faceted enterprise with five distinct but interconnected business units; agrifoods, import and export, e-commerce, technology consulting, and have recently added the construction and affordable housing development business unit.

Currently, this project is in its initial phases, intending to build 6 homes in Northern Ontario by the end of 2022, and 200 homes by 2026. This initiative focuses on leveraging construction and architectural partners, Moonbeam's data science team, and the import and export team, to help lower development costs to provide customers with low-cost, quality homes. To understand both Moonbeam and the competitive environment, we conducted an internal and external analysis.

MARKET ANALYSIS: PORTER'S FIVE FORCES



Due to various construction and housing development companies in the for-profit and nonprofit areas of the industry in Ontario alone, the competitive rivalry in the construction and housing development is medium.

Due to the cheap and available land spaces, Northern Ontario is highly sought after by other construction and housing development, leading Moonbeam to compete with companies for land and municipal approval.

One of the key issues facing Northern Ontario housing is the lack of social housing in the area (Couillard, 2019). The province is seeking non-profit housing developers like New Common Development to help build homes in the region. Due to the fact these developers would be provincially funded and provided the necessary land to build these housing complexes, they should be looked at as co-opetition. They are both competing for land, but it may be of interest to co-operate and partner with these groups due to their similar ethos.

Other Ontario developers to investigate are the Bay Builders, Conscious Builders, and Viceroy Markets. These developers work all around Ontario, with construction arms and focus on customizable, affordable, and environmentally sustainable homes in both materials and housing features. Specifically, Conscious Builders has green standards and certification to guide their builds.

Though the market is heavily entrenched, Moonbeam's construction and housing development project has key distinguishing factors in comparison to the companies in the current market. Not only does Moonbeam focus on building affordable, sustainable, and customizable homes, its offer includes smart home technology. Moonbeam's intentions to build communities with hydroponic units, also add to their value.



BARGAINING POWER OF SUPPLIERS

HIGH

Due to the global pandemic, key supplies like lumber are in high demand and scarcity, leading suppliers to increase the prices of these materials. Moonbeam is engaging in a market where the suppliers have high bargaining power and their need for these resources will make it difficult to negotiate with these suppliers.

However, as Moonbeam continues to leverage existing partnerships from their import and export business, and other connections with lumber mills and sustainable material companies directly – supplier power may lessen.



BARGAINING POWER OF BUYERS

LOW

The customer segment Moonbeam is considering is ecoconscious millennials. Given the current housing crisis and the high cost of homeownership, millennials do not have the power in deciding the price of Moonbeam's homes. Moonbeam is willingly driving down the cost while providing quality and sustainable homes.



THREAT OF SUBSTITUTION

LOW

The threat of substitution is low as there is not a significant presence of affordable home builders in the area. Moonbeam's network of partners further reinforces its advantage in Northern Ontario. The variety of services Moonbeam and its partnerships offers, in combination with their core technology competency, differentiates them from other firms in the area and makes it difficult to substitute for them.



THREAT OF NEW ENTRY

LOW

Moonbeam's broad partnership network and its core technology and AI competency create a difficult combination to replicate in Northern Ontario. Although several AI companies exist, Moonbeam appears to be the sole Data and AI-driven firm invested in developing homes in Northern Ontario.

KEY CHALLENGES & PROBLEM FRAMING

Through our research, internal and external scan, analysis on trends in the current housing market, and Northern Ontario cities and towns (see Appendix A for City Profile on Smooth Rock Falls), we identified five key challenges that impacted our business model innovation and strategies:



CHALLENGE 1 CURRENT STATE OF HOUSING AND COMMUNITY DEVELOPMENT IN NORTHERN ONTARIO

Urban dwellers are attracted to small towns and cities due to the greenspaces, and the close community relationships. However, this novelty has created the conditions for a lack of diversity in the types of homes and housing options available (Brown, 2014, p. 4). As more Canadians become interested in moving to more remote and rural spaces (Hertzberg, 2021), ensuring a variety of stylish and quality homes is needed to attract these buyers.



CHALLENGE 2 LIMITED QUALITY INFRASTRUCTURE IN NORTHERN ONTARIO

As more people migrate to small towns and cities in Northern Ontario, Moonbeam needs to consider these Northern Ontario cities' and towns' infrastructure capacity. With Moonbeam's goal to build single-family homes, multi-unit low rises, and duplexes in the next five years, in towns like Smooth Rock Falls with a population of 2,000, 10 plots of rural and commercial land, two schools, and a hospital that can support

only 6,400 people – Moonbeam must consider its limitation to build homes and attract newcomers to the region without adequate infrastructure to support newcomers.



CHALLENGE 3 COSTS OF BUILDING ELEMENTS, AFFORDABILITY, AND COVID19

Northern Ontario land pricing is low, but Moonbeam must consider the variable costs of building materials, the availability of building materials, and the delays that may occur due to the global pandemic (Kupferman, 2021). As mentioned above, lumber mills have increased the costs of lumber due to mill closures, delays due to limited human labour, and transportation delays (Armstrong, 2021). To mitigate these concerns, Moonbeam must be direct buyers, leverage partnerships with lumber mills and alternative building materials manufacturers, use eco-friendly and recycled materials, and control annual and seasonal supply chains and local labour resources.



CHALLENGE 4 BUILDING AND DEVELOPING RELATIONSHIPS WITH EXISTING COMMUNITIES WHILE ATTRACTING NEWCOMERS

As a new business moving into small, tight-knit communities, it can be difficult to build trust and relationships. Moonbeam must create a company identity that speaks to these communities' values (BBB, 2019). A clear vision through branding and marketing Moonbeam as a participant in the communities' ideal and desired future, while also engaging and marketing to those outside of the communities, is integral. Community planning, engagements, and integrated design can help create these relationships.



CHALLENGE 5 CONSIDERATELY AND ETHICALLY LAUNCH A NEW VENTURE WITH MINIMAL RISK

Moonbeam's housing development requires high upfront costs and commitments, and especially as a new organization, it needs to minimize financial and social risks and reduce conflicts with customers and partners. It needs to build up a reputation and strong relationships. The company's values need to permeate throughout its business units, operational processes, decision-making, and partner selection. Internally, staff need to understand the shared vision and build up the core capacities and knowledge. Moonbeam's vision is ambitious, and it needs to build trust for the organization to grow and take on larger projects.



These challenges led us to the following problem framing question

HOW MIGHT MOONBEAM TRADING COMPANY SUSTAINABLY AND COST-EFFECTIVELY DEVELOP LONG-TERM THRIVING COMMUNITIES IN NORTHERN ONTARIO?



DESIGN CRITERIA

Due to the many challenges Moonbeam faces in this new venture and understanding Moonbeam's values and mission, we developed criteria that our innovations must include for it to succeed:

Community & Social Change Focus

One of the key features of Moonbeam is its desire to contribute to social change and not be an extractive company. The goal to help support individuals and communities, especially those that have been victims of structural and systemic issues, must be embedded and considered in any innovation. For instance, given the large Indigenous population in Northern Ontario, Moonbeam must acknowledge the structural racism they face, ensure that they are included, and considered in all decisions within the innovation.

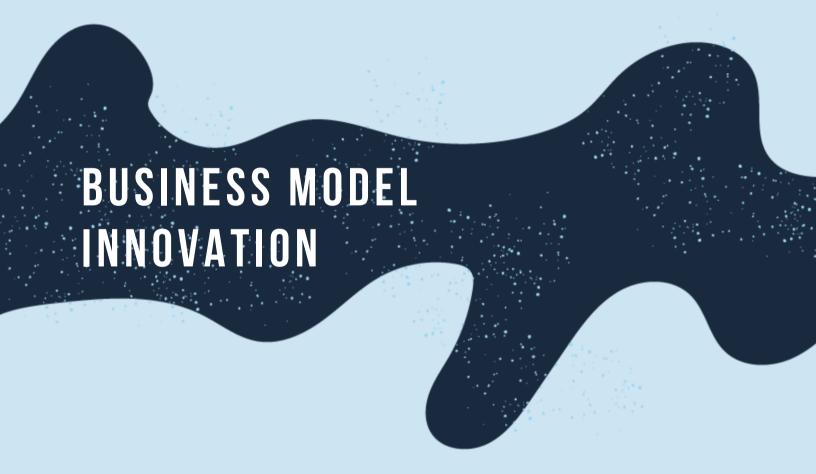
Designing Customer Experience & Clarifying the Offer Keeping in mind Doblin's 10 Innovation Strategies, our focus was to innovate the customer's experience by better connecting the customers to Moonbeam. Our innovation must consider developing new channels, creating a relatable brand story for Northern Ontario, and seeking new ways to engage with customers to develop new connections and insights for products and services.

By focusing on the customer segment and new ways to engage with them, it led us to clarify the offer as well as the products and services Moonbeam hopes to provide. Ensuring our innovation identifies or creates key distinguishable features of Moonbeam's construction and housing development offer, is necessary. This includes exploring how it will provide affordable and sustainable homes, the forms of housing technology it will provide, and the community development aspects as well.

Generational Impact & Considerations

This criteria stems from the need for long-term thinking and consider how other generations will be impacted by Moonbeam's decisions, through the long termism and the Haudenosaunee's seven generations principle. Our alternative business model must be able to consider the legacy of Moonbeam's construction and housing development in Northern Ontario for individuals, the community, and the environment. Embedding ways to account for these impacts and mitigate future risks and harm is essential to our business model and design process.





This section unpacks the features of our alternative business model, EcoLiving. By focusing on our customer segments, we developed a comprehensive business model that reflects the profit and social goals of Moonbeam.

CUSTOMER SEGMENT

The market analysis revealed that the core customer segment for Moonbeam's construction and housing development business unit are millennials between the ages of 26-36 that are environmentally conscious.

We learned that currently, millennials are in a conspicuous financial situation. With looming student debt, credit card loans, and the confounding effects of the gig economy (Haider & Moranis, 2018), millennials have been struggling to gain financial independence and acquiring valuable assets like homes (Almazora, 2021; Cousins, 2017).

See Appendix B for the Value Proposition between Moonbeam and the customer segment

See Appendix C for three stakeholder personas

For urban millennials, the goal of homeownership has been difficult to achieve due to the current Southern Ontario housing market pricing them out of homeownership. Related pain points are an increasingly busy work-centric lifestyle to attain financial security, making traditional life milestones seem out of reach. Affordable homes in Southern Ontario lack the quality, customizability, space, and vibrant communities they seek. More importantly, living a balanced and environmentally conscious lifestyle is an integral value that has impacted millennials' every behaviour - from brand loyalty to community living, which Southern Ontario urban spaces do not have.

Thus, affordable and customizable homes built with sustainable construction materials and processes would move our customer segment closer to achieving their lifestyle and financial goals.



ECOLIVING BUSINESS MODEL

Understanding the customer segment, allowed us to develop a business model that connects to eco-conscious millennials. It relies on the wealth of knowledge from partners and stakeholders. Moonbeam acts as a connecting point between them all. Information and knowledge are developed from working with each other, including the future and existing residents. Partners provide resources and activities that deliver Moonbeam's value proposition to their customers at a cost to Moonbeam.

Moonbeam will deliver its key value propositions to its customer segment through channels that spread awareness of their proposition, engage, and acquire customers. Customers can customize some of their home features, from aesthetic to structural changes. Revenue stems from home sales. Representing 10-20% of homes, customizations and add-ons allow for increased revenues. Additional revenue is also drawn from other Moonbeam complementary developments, such as hydroponic produce sales.

Customer relations are key in enabling revenue generation from their customer segment, as it facilitates education about Smooth Rock Falls and eco-friendly housing design, as well as co-creation.



KEY PROPOSITIONS

Moonbeam will deliver three primary value propositions to its customer segment:

Affordability: Moonbeam can lower their costs because of their data and supply chain management, ability to leverage unique partnerships (i.e., import/export business), investment in high-quality materials and services to avoid future home repairs, and lower land prices in Northern Ontario.

Sustainability: Sustainably sourced materials, energy-efficient construction processes, use of renewable energy sources, and ecologically regenerative development processes that revitalize the areas they deplete through reforestation initiatives.

Customizability: Provides home buyers with customization options that allow home buyers to design a beautiful home that fits their unique values and needs. Optional smart home add-ons allow for more energy conservation and savings options. Community hydroponic units with Growcer partners also offer homebuyers an option to subscribe and access fresh produce.



CHANNELS

Spreading awareness of what they offer to their customer segment through a brand strategy. This includes online advertising (e.g., social media), real-estate listings, municipality websites, real-estate publications, Moonbeam e-commerce websites, and traditional print marketing (e.g., print ads, postering, realtors).

Engaging customers through local community events, one-on-one meetings, public forums, and co-creation events.

Acquiring customers by partnering with a real-estate agency.



CUSTOMER RELATIONS

Moonhomes will interact with its customer segment in three distinct ways:

Personal assistance: Directly helping and nurturing new homeowners as they transition into ownership (i.e., inperson events, meetings with real estate agents, Smooth Rock Falls visit).

Self-service: Custom-home design software enables homeowners to design and test a variety of structural and aesthetic home customizations.

Co-creation: Community co-creation workshops help newcomers and existing residents to form community relationships through facilitated community activities that help them build a thriving future community with one another.

Ray, A. (2021, February 5). *Spreading Awareness About Mental Health Resources*. Pioneering Minds. https://www.pioneeringminds.com/pqposts/spreading-awareness-mental-health-resources/.

U4IoT Co-Creation Workshop for Smart Cities – 22nd-25th May 2018. LSP. (n.d.). https://european-iot-pilots.eu/u4iot-co-creation-workshop-for-smart-cities-22nd-25th-may-2018/.



REVENUE STREAMS

ASSET SALES

- Standard-built homes
- Custom-built homes

CUSTOM ADD-ON OPTIONS

- Smart home integrations
- Growcer subscription

The **EcoLiving** value proposition will enable revenue generation through asset sales of completed standard-built and custom-built homes. Custom options including smart home integrations and shared community hydroponic units, enable an additional fixed-price revenue stream.



KEY PARTNERS

For Moonbeam's construction and housing development task to succeed, it would need to leverage internal (i.e., existing teams with Moonbeam) and external partners.

Internal partners: Moonbeam's import/export, data science, and agri-foods teams support external partners in completing home and community development projects.

Home development partners: Focused on home construction and design.

Community development partners: Focused on fostering thriving communities to surround Moonhomes.

Chandler, M. E. & N. (2008, March 25). How Smart Homes Work. HowStuffWorks. https://home.howstuffworks.com/smart-home.htm.

Bernazzani, S. (2021, May 25). 21 Examples of Successful Co-Branding Partnerships (And Why They're So Effective). HubSpot Blog. https://blog.hubspot.com/marketing/b est-cobranding-partnerships.

INTERNAL PARTNERS

Internal partners include all Moonbeam business units and their employees

Moonbeam import/export: Supplier relations are leveraged to purchase construction materials and supplies at competitive rates.

Moonbeam data science team: Works with internal data and external partners by delivering insights that reduce development costs, tracking carbon footprint data, streamlining risk assessments, and automating internal processes to improve operational efficiency.

Moonbeam agri-foods: Agronomists and farmers maintain Growcer hydroponic units.

HOME DEVELOPMENT PARTNERS

Construction firms: Local construction firms; Labour

Architectural design agencies: Studio of Contemporary Architecture, Black Architects and Interior Designers Association, Civil Engineer, Architect, Green Building Initiative

Custom home software designers: Licensed use of proprietary software

COMMUNITY DEVELOPMENT PARTNERS

Municipal economic development organizations: Timmins Economic Development Centre, Northern Ontario Economic Development Corporation, Northern Ontario Development Program

Municipalities: Land, partial infrastructure

Marketing agency: Brand awareness

Federal government: BIPOC business loans and grants, tax

credits

Local post-secondary institutions: Graduates from Northern College (technology and trades)

Real estate agencies: Facilitation of home sale process

Growcer hydroponics: Community growing units

Banks and other financial partners: Financial support through loans and lines of credit

Community leaders: Indigenous elders, local business owners, mayor of Smooth Rock Falls

Research centres: Centre for Applied Disaster and Emergency Management (CADEM) can provide consultation and training to empower Moonbeam to build resilience into their communities by drawing upon global best practices in the emergency management field.



COSTS & REQUIRED RESOURCES

Capital expenditures will require funding from internal investment equity and external financial support from banks, other financial partners, and government grants and loans.

Variable costs that should be actively monitored include:

- Future land prices
- Labour (i.e., construction workers, engineers, site managers)
- Material costs (i.e., commodities),
- Marketing and customer service costs (at an hourly rate)
- Contractor fees and partnership costs
- Legal costs (i.e., Intellectual property, permits, contracts, general counsel, etc.)
- Housing sale transaction costs (i.e., commissions to realtors)

Fixed costs include:

- Land
- Hydroponic growing units
- Community liaison and facilitator costs (salaried)

See Appendix D for Business Model Canvas

EVALUATING THE ECOLIVING BUSINESS MODEL

To ensure the *EcoLiving* business model satisfies customer needs at an individual level and scaled up to the community level, we assessed our business model according to its ability to solve customer problems (problem-solution fit), have traction in the current market (product-market fit), and provide Moonbeam with a profitable and scalable business (business model fit) (Osterwalder et al., 2014).

PROBLEM-SOLUTION FIT

Does the value proposition address the jobs, pains, and gains of the customer segment?

Looking at mobility in Ontario, over 50,000 people moved out of Toronto to rural and suburban communities between July 2019 and July 2020 (Agecoutay & Anderson, 2021). According to recent trends, one-third (4.8 million people) of Ontario and Toronto residents would move to a smaller community. Those who are most interested in relocating are younger (36% under 30 years old). What motivates them are a quieter pace of life, affordable housing, the outdoors, closer to friends and family, and a larger home (Jenkins, 2021). Moonbeam's homes can help fulfill this lifestyle, and resolve customer pains and needs.

See Appendix B for Value Proposition

PRODUCT-MARKET FIT

Do the value proposition, services, and products have market traction?

Relocation from urban cities to suburban and rural areas is an evolving trend, sped up by COVID-19. More millennial families are considering this option as housing prices continue to rise, especially in Toronto. The market size is growing, however, many small towns are competing for new residents. According to U-Haul's report of the top 20 places people were moving to in the last year, many were moving out of Toronto and Montreal, but medium and larger-sized cities, like Vancouver, were a draw. Smooth Rock Falls was not on the top 20 list, but many of its features and amenities are valued ("It's called 'out-migration' and Canada's bigger cities are bearing the brunt," 2021).

In 2019, Smooth Rock Falls did initiate a large campaign and offered huge real estate discounts, as high as 90% off. This resulted in 24 families (50 individuals) relocating to the town (Sharma, 2019). The better the infrastructure, the more sellable the community (Weeden, 2020), which helps satisfy demand. As Smooth Rock Falls and Moonbeam are new to the market, both have to invest in attracting and developing customer demand. While there is some traction, Moonbeam must do its best to deliver on its value proposition and address the customer's gains, pains, and jobs, such as aiding the town's infrastructure and better housing quality and price compared to cities.

BUSINESS MODEL FIT

Is the value proposition profitable and scalable?

There is insufficient evidence of Al-driven housing developments succeeding in a Northern Ontario context. However, the demonstrated success of Aldriven enterprises entering and quickly dominating new sectors (Roe, 2018), lack of community participation and co-creation, limits the success of development in a range of towns and cities (Sturzaker & Verdini, 2017), and the success of other affordable housing developers suggest a high probability of a business model fit for the EcoLiving value proposition. There are several non-profit developers, developers with social purpose, as well as corporate developers interested in moving into the affordable housing and home space. Examples include New Commons, Cahdco, and the Daniels Corp, Canada's largest developer. Each developer has its own financial structure, but, typically, they are funded by investors, banks, and, to a limited extent, the developer's own equity. The high returns on real estate allow them to borrow heavily and scale (Real Estate Development Financing Isn't as Easy as You Think, 2019).



STRATEGIC RECOMMENDATIONS & IMPLEMENTATION PLAN

This section highlights the strategies to implement to help bolster the business model innovation for Moonbeam's Northern Ontario expansion plans. We focused on three key strategies to help support Moonbeam's housing development and social goals; branding, co-creation, and sustainability.





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BRANDING STRATEGY

BUSINESS MODEL COMPONENTS: CHANNELS, CUSTOMER RELATIONSHIPS, PARTNERSHIPS, KEY PROPOSITIONS

As a new organization with diverse business operations, Moonbeam needs to develop a separate brand identity to communicate to its target market and represent its affordable, sustainable homes. We suggest the name Moonhome. Moonhomes would market itself differently by focusing on the construction and housing development business, community, and placemaking. In partnership with Northern Ontario cities and towns like Smooth Rock Falls, the marketing will be representative of the current and future residents. Unique brand assets and open communication channels will help future residents envision themselves in Smooth Rock Falls while managing change and expectations of current and future residents.

The brand and marketing strategy must remain distinct to communicate its value proposition and differentiation from other small-town developments. The sub-brand, Moonhomes, must create an emotional bond, as well as, address customer fears and pain points, such as location, financing, and home quality. The marketing should also address existing residents' fear of developers and big changes. Moonhomes' positioning, price, placement, promotion, and product all need to be established before other activities can take place.

Moonbeam's vision "to have a positive social impact wherever they do business" can very much be embodied in their communications.

RECOMMENDATIONS



MOONHOMES SUB-BRAND: TELLING MOONBEAM'S STORY

We have created a sub-brand, Moonhomes, to differentiate this project from Moonbeam's other business ventures that have separate operations, goals, and target markets. The other business ventures cater to a variety of stakeholders like mid-sized organizations and governments. New communication devices, like a sub-brand, need to be established. This brand will be further developed and will be a key asset that needs to be nurtured. Moonhomes represent a balance of new and old, nature and development.

Representing Moonbeam's values, this sub-brand should be open and welcoming. According to the Knight Foundation's report, Soul of the Community, the three main drivers of attachment to a community are openness, aesthetics, and social offerings (n.d.). It also should be transparent in the process and development of affordable homes, from suppliers, materials, to partnership. It should feature, in imagery and copy, key selling points:

- Sustainable, eco-friendly homes surrounded by nature and accessible hydroponic produce
- Ethical and regenerative development processes
- High value relative to costs
- Aesthetic and leading-edge homes
- Located in a friendly community full of opportunity

In essence, the brand should communicate the 'why' and goals of the organization. Author Simon Sinek illustrates that people buy into something when they understand the 'why,' as opposed to only the 'what' and the 'how' of a product or service. The 'why' helps people rationalize their behaviour and attracts other believers (Sinek, 2009). With a life change as big as relocating to a new town, Moonbeam needs to illuminate its vision and get others to believe in the possibilities of a new community.

Moonbeam's values, team, and commitment to the preservation of nature and equity are not necessarily obvious but are highly valuable to stakeholders and young, diverse, millennial families/individuals. This is a key differentiator that sets Moonhomes apart from other developers, housing options, and small-town initiatives.

See Appendix E for Moonhomes sub-brand ideas





SMOOTH ROCK FALLS PARTNERSHIP: A COMMUNITY PERSPECTIVE

Moonbeam should engage with small towns like Smooth Rock Falls to ensure proper representation and shared understanding. For many potential new customers, this may be their first encounter with the town, as such it should be accurate and lead the two parties into conversation. Buying a Moonbeam home is also to be a member of the new community and creating a new future together. With the support of municipalities like Smooth Rock Falls business development representatives, residents, and local businesses. Moonbeam can co-create the town's branding and story. This includes photography, video, community spokespersons, and graphics, which will help customers from anywhere envision themselves in the town. Municipalities like Smooth Rock Falls also benefit from this by increasing their awareness and having a stake in how they are perceived.

Future residents will have to visit Smooth Rock Falls, at which point, Moonbeam can create experiential events, like tactical urbanism. Tactical urbanism is not bound to urban centres, and are inviting, participatory, low-cost pop-ups in public spaces that can leverage the town's existing assets and bring diverse people together in a casual manner. It includes sidewalk cafes, street art, and pedestrian days (Has COVID-19 Given New Life to Tactical Urbanism?, 2021). Smooth Rock Falls can showcase their natural features, such as hiking trails, gardens, and farms, as well as local French-Canadian and Indigenous cultures. These activities can continue to build community engagement and welcome newcomers.



FINDING THE RIGHT PEOPLE

Finding the right customers is key to the success of Moonhomes and to the growth in towns like Smooth Rock Falls. Moonbeam needs to find people who would like to live and thrive in a new town and communicate with them where they are. Communication channels need to be established, such as a website, email, and social media. Outreach and awareness need to include the existing real estate system, such as brokers, realtors, and real estate publications. Brand assets are leveraged here; videos and renderings must be encapsulating and shareable to enable word of mouth and referrals. Moonbeam may want to consider incentives for the first-time buyers, as they take on more perceived risk buying into a new development.

MILESTONES

- 1. Hiring marketing agency for branding and internal marketing project manager. Marketing should start as early as possible to start building awareness, leads, and potentially pre-sales
- 2. Creation of marketing assets (e.g., website, brand graphics, video, renderings) and develop channels
- 3. Partnership and co-branding with cities and towns like Smooth Rock Falls established
- 4. Establish awareness with real estate organizations and amongst the target market
- 5. The pipeline of leads across Canada
- 6. Secure national and local media coverage
- 7. First sale that can be used as a case study for future sales

RESOURCES

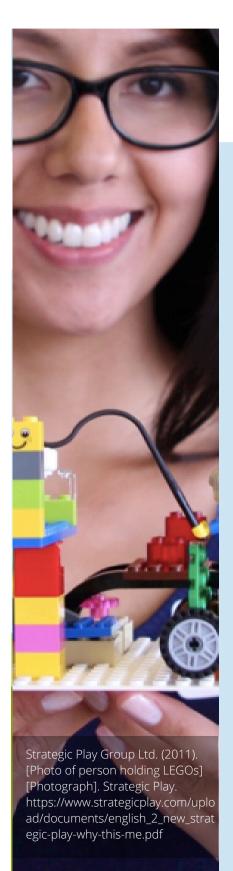
- Equity/funding for a marketing agency and creative development
- Customer relationship management and in-house data scientist
- Incentives for first buyers
- Internal marketing project manager
- Cooperation of Smooth Rock Falls

SUCCESS METRICS

- Clear communication of value proposition and differentiation through new branding and marketing, so that future residents can envision themselves in Smooth Rock Falls and other small communities
- Customer recall
- Positive association
- Reduce customer hesitations and fears
- Sales of first six homes

RISKS & CONSIDERATIONS

- Competition from small towns for new residents
- Counter trends (e.g., slowing down of urban-to-rural movers due to other housing and remote work trends)



CO-CREATION STRATEGY

BUSINESS MODEL COMPONENTS: CHANNELS, CUSTOMER RELATIONSHIPS, KEY ACTIVITIES, KEY PARTNERSHIPS

As Moonbeam establishes its brand and story within the community, it is integral for Moonhomes to co-create and co-develop alongside the existing community and newcomers' residents as they integrate into the towns and cities. *Co-creation* and managing relationships with all key partnerships create a shared goal and purpose between developers and others that are directly and indirectly involved in the construction and housing development process. To engage with these communities, Moonhomes needs to ensure that they are invited and given permission to access these lands and ensure that the voices of the original guardians of the land are not only respected but included.

Before embarking on co-creation, it is integral to ensure that all stakeholders are accounted for. In the case of Moonbeam, these include existing communities, Indigenous band councils, Indigenous urban planners, municipalities, housing development experts, local businesses and business owners, and newcomers. It provides Moonbeam with the opportunity to learn about diverse experiences, see stakeholders interact with one another, and ensure that the development of infrastructure and communities is what the community wants to see. Co-creation allows for innovation and creativity as well as at low risk and cost (Ramaswamy & Gouillart, 2010). Through groups engaging in co-creation,



sharing experiences, and developing communities that they see themselves in allows for people to feel heard and appreciated while developing commonality and shared community values.

It is also important that Moonbeam understands how these individuals connect and interact with one another. For instance, municipalities have a direct relationship with the existing communities, and their responsibility is to provide urban plans, budgets, and policies to help support the community. Municipalities' opinions within these meetings need to be recognized as they set the tone of development. Lastly, developing a platform and channel for these interactions to occur and retaining these experiences as insights, is integral.

RECOMMENDATIONS



VALUE CO-CREATION & AVOIDING CO-DESTRUCTION

The key to co-creation is ensuring that there is an established common goal to manage the expectations of the project. Moonhomes acts as the facilitator between diverse actors and must be able to set the tone of these meetings. If the vision isn't clear, there is an opportunity for conflict and tension to arise, which can lead to value co-destruction – the breakdown of a common goal. Managing differences creates a space for the most creativity and innovation, fostering and nurturing constructive conversations between parties is essential to developing that space (Candel, Gustavsson, & Eriksson, 2021). Being willing to integrate different approaches, compromising, and ensuring that people don't feel that one group's benefits are another group's sacrifices, is needed in co-creation as the housing development moves into a community development project.

Given that Moonbeam would run these workshops in collaboration with the municipalities, this partnership is the one that needs the most management. Municipalities do set limitations with projects – from the placement of land to the positioning of different design elements in a public building. Managing expectations, using integrated collaboration approaches, and sometimes dominating approaches when necessary is needed to manage these expectations. Creating a joined-up team with both Moonhome workers and these civil servants may help foster that commonality and collaboration.

In small towns and communities, where large developments haven't occurred, many actors may be distrustful of developers as well as fearful of change. Assuring these groups by allowing them to preserve the infrastructure and buildings that they love while making improvements in the places where people can do better is integral to the process. More importantly, avoiding discussions on extreme urban development and the preservation of a small-town atmosphere is essential for both the existing communities and the customer segment Moonbeam wants to target.



ENSURE MULTI-LEVEL ACCESS TO CO-CREATION & DATA COLLECTION

Often time co-creation focuses on workshops and ensuring that everyone is in the same room sharing their experiences and interacting with one another. However, with COVID-19, many Moonhomes should adapt to digital platforms to foster similar interactions and participation. In Moonhomes' case, developing relationships through town halls, focus groups, and workshops within these communities may be the main way to develop value cocreation. But, to also engage with newcomers and those that are looking to move, developing an interactive platform is necessary. For instance, in Brampton, they developed a team that focused on meeting with diverse people through formal workshops and informal discussions around the city. But they also developed an interactive mapping exercise that focused on what people loved, what people wished was there, and where improvements could be made (City of Brampton, 2017).

As Moonhomes gathers insights and information from diverse groups and different settings, it is important to develop a data management tool and team to help to store, synthesize, and scale the information to a design or concise plan.



DEVELOPING DIFFERENT FACILITATION METHODS

Developing different co-creation facilitation methods is necessary when engaging with groups in the design process. During in-person workshops, using mapping exercises and Strategic Play with Legos (LEGO® SERIOUS PLAY® Methods for Design Thinking, n.d.) and markers can lead to a rich dialogue. Again, it also allows people to be immersed in the process while engaging with different people to create a shared vision. More importantly, long termism, legacy work, and seven generational thinking can help support the generative and decision-making process as well. This facilitation strategy ensures that communities and groups are looking at how these specific impacts will affect future generations – for the worse or for the better. Encouraging individuals to think of how these ideas and decisions will impact people in 10, 25, 50, 100 years, and so on, may lead to great creative, innovative ideas, or to key considerations that may never have been discussed before.

MILESTONES

- 1. Creating or hiring a team for community engagement this should include Indigenous and non-Indigenous urban planners, data analysts, a community liaison (i.e., civil servant) from the existing community, and facilitators
- 2. Creating reporting and data systems to help store information and later synthesize it
- 3. Develop workshops and platforms for community engagements
- 4. Conduct diverse workshops and engagements with a diverse set of stakeholders
- 5. Measuring community satisfaction of design plans

RESOURCES

- Human resources (i.e., facilitators and designers)
- Training facilitators in diverse facilitating and co-developing exercises (e.g., long termism and Strategic Play)

SUCCESS METRICS

- Community shared visions for the future of the small town
- Measuring community satisfaction throughout the process (through surveys and other data collection strategies)
- Not many protests and anger from the community residents
- Positive integration of new residents

RISKS & CONSIDERATIONS

- Unable to manage differences and groups causing an environment of value co-destruction
- Resident distrust leads to delays in co-creation and facilitation
- Uncertainty with community dialogues
- Difficulty in addressing Indigenous rights (e.g., water rights and poor infrastructure in Northern Ontario)
- A long process with many different moving parts may halt the construction and housing development process
- Not able to create a unified vision and goal for the future

Town of Smooth Rock Falls. (2019). [Photo of lake and trees] [Photograph]. Facebook. https://www.facebook.com/TownSR F/photos/a.437379649724034/2134 314516697197

SUSTAINABILITY STRATEGY

BUSINESS MODEL COMPONENTS: RESOURCES, VALUE PROPOSITION, KEY ACTIVITIES, KEY PARTNERSHIPS

As an organization that seeks to balance profit with purpose, it's crucial that Moonbeam's affordable housing developments occur in a sustainable manner. Moonbeam's data and AI competencies will enable it to embed carbon footprint tracking and reporting into its construction and sourcing processes. This will ensure the company will have a target for which their offset initiatives can strive to match. The reforestation initiatives will seek to balance the ecological destruction that construction processes cause with regeneration activities in and around Moonhome communities. Biophilic design principles, sustainably sourced materials, and energy-efficient construction processes will support Moonbeam's architectural, construction, and agronomist partners in developing an Eco-Friendly community that exists in harmony with its natural surroundings. Moonbeam's data science team will be primarily responsible for developing metrics and analytic models to measure carbon footprint impacts and regeneration activities that seek to rebalance its impact. Architects and civil engineers at Moonbeam's architecture partners should consider how to meet and exceed LEED certification standards. Agronomists at Moonbeam's agri-foods business unit will be responsible for maintaining Growcer units that can reduce food supply chains in Moonhome communities.

RECOMMENDATIONS



GIVING BACK: CORPORATE SOCIAL RESPONSIBILITY

Every Moonbeam business unit has its own social impact goals and should make them clear and accessible.

Moonhomes will use local materials, and to ensure regenerative methods, specifically the use of lumber, it may want to consider reforestation. Directly replanting trees will help maintain Smooth Rock Falls' ecosystems, in addition to the careful selection of land. In the case residential homes are built on raw land, it should partner with the town to develop and promote green infrastructure.

Furthermore, integrating Growcer hydroponic units into communities will reduce local food supply chains and indirectly reduce the community's long-term carbon footprint.



LEADING BY EXAMPLE

Amplification of Moonhome's eco-standards and impacts will not only be beneficial to hesitant stakeholders but may inspire them.

Designing a sustainably built (materials and process) energy-efficient home model would allow Moonbeam to lead progress towards their social impact goals by example. Information transparency gives insights and maintains accountability of Moonhome's partners, suppliers, processes, model, and actual results. It can be a champion of green standards, spaces, local food systems, which may impact the surrounding industries and partners.

To demonstrate its commitment to transparency, Moonbeam should track its carbon footprint data and communicate it to the public and their key stakeholders to keep themselves accountable. Moonbeam's eco-homes will be more successful when it acts in concert, integrated with the community. Tracking performance, like carbon footprint and energy usage, is required for the whole lifecycle of the home. It may further consider starting a local network to disseminate information, collaborate, and grow the movement.



BUILDING RESILIENCE

Researchers at the US National Science Foundation's Spatiotemporal Innovation Centre at George Madison University highlighted some key applications of Big Data in the four phases of disaster management (Yu, Yang, & Li, 2018).

Preparedness: Monitoring, detection, forecasting, and predictive analytics

Mitigation: Long-term risk reduction and assessment **Response**: Damage assessment and post-disaster

response coordination

Recovery: Infrastructure and services restoration

As the extreme weather events associated with climate change increases in frequency, Moonbeam could once again leverage their data science team to provide predictive analytics and risk assessments that help communities comprehensively assess their risks and ensure that disaster planning, mitigation, and recovery strategies foster resilience in the face of adversity. Moonbeam could also form partnerships with local postsecondary institutions and disaster management research institutes to develop strategies to leverage its data to improve disaster resilience. Sensor networks developed and maintained by local post-secondary grads can feed analytics models developed through partnerships between Moonbeam's data science team and disaster management research institutes such as the Centre for Applied Disaster and Emergency Management (CADEM). Partnering with such an institute provides Moonbeam

with the education, knowledge transfer, outreach, and innovative solutions to challenges emergency management stakeholders face through research CADEM conducts on global best practices (Centre for Applied Disaster and Emergency Management, n.d.).

MILESTONES

A net-zero carbon footprint can be accomplished by reaching each of the following milestones:

- 1. Moonbeam's data science team develops a carbon footprint tracking and impact measurement model, and corresponding performance metrics.
- 2. Introduce sustainability performance metrics in the approval process for all potential suppliers, contractors, and activities.
- 3. Develop an eco-friendly housing model
- 4. Reduce local supply chains in Moonhome communities.
- 5. Commence reforestation initiative
- 6. Build resilience into communities

RESOURCES

- Land, trees, and other plants
- Sustainable building materials and equipment
- Smart technology
- Growcer hydroponic units
- Cultivars
- Disaster resiliency education and training

SUCCESS METRICS

At the core of Moonbeam's ethos lies its commitment to positive social change. While the affordable housing developments in Northern Ontario address socioeconomic disparities, it is still an extractive ecological process. Therefore, it's crucial for Moonhomes to commit to a sustainability strategy that balances out the extractive aspects of home development with regenerative actions and initiatives. A successful sustainability strategy will:

- Enable Moonbeam to be net-zero in their carbon footprint by the end of their Northern Ontario expansion project.
- Lead to LEED certification.
- Transparently measure and report environmental impacts
- Improve Moonbeam community resilience to natural disasters

RISKS & CONSIDERATIONS

- Accuracy of carbon footprint tracking
- · Lack of reforestation areas
- Commodity price fluctuations
- Supply-chain disruptions
- Cybersecurity
- IT infrastructure failures
- Data security
- Natural disasters causing damage to people, property, wildlife, and the environment

IMPLEMENTATION OVERVIEW

Moonbeam	2021 Land purchases.	Development of Northern operations set up (10 new staff). Establish agri-foods business. Community relations.	2023 6 single family units built and sold.	2024 24 duplexes built Southern and Northern Ontario operations fully operational. Expand to 2nd province	Z025 Townhouses and low-rises built. Moonbeam international expansion.	2026 3 mid-rise buildings built.
Branding	Hire marketing agency. Hire internal project manager. Build awareness. Develop marketing assets and channels.	Smooth Rock Falls partnership. Awareness campaign for target market. Develop pipeline of leads. Media coverage.	First sale. Experiential events/welcome Continue lead generation.	Continue brand awareness and lead generation		
Co-creation	Hire community engagement team.	Develop data and reporting system. Develop workshops and platforms.	Conduct workshops and events (Iterative process). Confirm design process with stakeholders.			Begin building social and physical infrastructure. Conduct community satisfaction reports.
Sustainability	Data science team develops a carbon footprint tracking and impact measurement model and performance metrics. Sustainability metrics for suppliers, contractors, and activities.	Develop an eco-friendly housing model.	Reduce local supply chains in Moonhome communities.	Commence reforestation initiative.		Build resilience into communities.
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WHAT DOES THE FUTURE LOOK LIKE?

Through long termism and applying Haudenosaunee's seven generations principle, we have been able to consider the impact Moonbeam will have in Northern Ontario.

These insights considered the impacts of our recommendations and considerations from 10 years, 50 years, 100 years, and so on, while also considering the children of the past, present, and the future through the Children's Fire exercise. It helped ground Moonbeam's intentions and extrapolate both the benefits and concerns for the future and future generations, and ensure these decisions lead to thriving communities across Northern Ontario. Through this exercise we asked the following questions:

- What is Moonbeam's legacy in Northern Ontario?
- Will the seven generations who work, live, and play in Northern Ontario appreciate the decisions Moonbeam has made?
- Will they be hurt by any of our decisions?

FOUR PILLARS

Moonbeam's future in Northern Ontario is then grounded in these four key pillars:

Community Development and Living: establishing a sense of community and social cohesion, is by actively integrating two different groups in the planning phases of the community. Facilitating the newcomers and the existing communities will allow for diverse voices to be heard and interact with one another. What keeps a community thriving for generations to come is not just economic capacity, but it is the social wellbeing and peace of a flourishing city or town.

Providing future children with quality infrastructure, schooling, and communities to grow is also essential to the preservation of these communities.

More importantly, as more diverse populations with different ethnic backgrounds than the Anglo and Franco-Ontarian demographic, a safe space where all is accepted will be hard to maintain and can impact future generations. This may not be able to be addressed by Moonbeam, but this can have a direct effect on the decisions that are made now.



Generational Wealth and Financial Independence: through providing millennials with more affordable homes, Moonbeam relieves generations that may have been bound by debt and financial constraints; many millennials have amalgamated student loans and debts, which have framed their future, and the future of their families. Especially, considering racial inequities in income in Canada and disparities in homeownership (Smith, 2019; Olowolafe 2020), owning a home, growing equity and purchasing key assets, and being able to financially invest in the wealth of the future generations, are all signs of making it, and remove the financial burdens and limitation of the past to lead future generations to succeed.

Local Economic Growth and Local Employment: Providing comfortable and well-designed homes where individuals can thrive by either working from home, acquiring space to create their businesses, and the access to commercial spaces, can attract newcomers to the area while also building the local economy and creating more jobs to the region (Community Builders, 2015, p.2).

However, maintaining and addressing the limits to growth through forward-thinking and visioning, ensures that future generations are not negatively impacted by a lack of services and infrastructure, while also maintaining the novelty of small-town living their parents, grandparents, and great grandparents were able to live in.

Ecological Conservation and Consideration: The focus of ecological preservation and disruption has long-term effects on these communities. Understanding the negative impacts of buildings on top of already occupied ecological spaces and the use of local trees to produce lumber for housing is a concern. Using less invasive construction techniques, plans of ensuring conservation of ecosystems through tree planting, and animal conservation, are essential in maintaining environmental sustainability for the future. Moreover, it will be important to transition away from technology and machinery that drives carbon emissions for the benefit of future generations.

With these four pillars in mind, Moonbeam through Moonhomes can provide immense value to these communities, and support financial, social, relational, and generational changes with those that it connects with.

See Appendix F for the Three Horizons exercise
See Appendix G for the Seven Generations exercise
See Appendix H for case studies of failed development projects
around the world

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APPENDIX A: SMOOTH ROCK FALLS TOWN PROFILE



Established: 1916

Population: 1,341

Industries:
Retail,
manufacturing,
agriculture, health
care, education

SMOOTH ROCK FALLS

DEMOGRAPHICS

- 70% French is first language
- \$75,000 average household income

Cultural origin:

- 93% 3rd+ generation Canadian
- 8% Indigenous
- 1.5% immigrant

AMENITIES

- One multi-level French and one English school
- One library
- Several recreational facilities
- One hospital

LIVING

- Active, outdoor lifestyle: fishing, hunting, snowmobiling, canoe, hikes, walks
- Low costs of living
- 43% work outside of Smooth Rock Falls

KEY ISSUES

- Declining infrastructure
- Declining population
- Lack of senior and affordable homes

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APPENDIX B: VALUE PROPOSITION

PRODUCTS AND SERVICES

- Eco-friendly and sustainable
- workshop facilitation
- Housing add ons and

GAIN CREATORS

- Affordable and quality
- Diverse housing options for
- Smart homes and tech features within the community
- Option of more add-ons that doesn't break the bank

PAIN RELIVERS

- Save time and money (ex. no need for extreme renovations)

CUSTOMER JOBS

- Make environmentally
- -Better long-term environment for self and family growth
- Reduction in climate risks to self and community
- Help reduce the effects of global warming
- Reduce carbon footprint
- Enable future generational survival
- Enable financial security
- Improve financial health
- Provides sufficient personal wealth to provide basic needs for oneself and any dependents
- Income goes to an asset (home equity) rather than a liability (rent)
- Self care
- -Improve personal mental health
- Make good decisions

GAINS

- No need for renovation, updating old home - Affordability with quality
- Customizable Options Customizable homes
- Modern design, smart home enabled
- Bigger homes with more rooms (ex. office)
- Eco conscious and energy
- Eco-conscious lifestyle choices
- Energy efficient lifestyle improves status to peers
- Renewable energy sources
- Sustainable sourcing
- Work/life balance
- No need to choose between career and
- Great place to raise kids
- Safe community
- Welcoming community, social connections, community building
- Local produce (ease in access)
- Similar offerings as city with a substantially lower costs
- Close by amenities
- Smart/long term financial (ex. reduce debt, save money,
- Well-priced housing options
- Saved money, less debt
- Percentage of wealth in assets
- Owning their home for generations - Leading by example

PAINS

- Accumulating excessive debt
- Not affording what they want Steep investment costs to home ownership
- Difficulty finding affordable real-estate
- Using debt to finance liabilities vs. assets.
- Financial risks associated large portions of leveraged (mortgaged) capital in overheated Southern Ontario housing market
- and conflicting values
 -Lack of home ownership reduces individual
- power and status
- Lack of individual expression affects sense of self
- Lack of eco-conscious lifestyle reduces status, trust of their social circles (peers), and self-esteem (conflicts with personal values) - Social risks associated lifestyle choices that conflict with eco-conscious values.
- Lack of long term housing stability for themselves or their families
- More affordable Southern contribute to ecological
- space, and vibrant
- Resists leaving large cities

APPENDIX C: PERSONAS



Location: Quebec Age: 61 Status: Separated Occupation: Plumber

JOHNATHAN

PERSONALITY

Community Oriented
Active
Family Focused
Hard Worker

REASONS TO USE

High Technology More Accessible Space

INTERESTS

Sports Outdoors Food Biking

REASONS TO BUY

Pass Down to Children Home Ownership Affordable

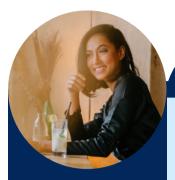
Johnathan moved to Smooth Rock Falls after he and his partner separated around 10 years ago. He moved with his two children to Smooth Rock Falls from a small town in Quebec hopeful and excited to start anew. He was able to purchase a home for a relatively low cost. He chose Smooth Rock Falls as it was a small community, primarily French-speaking. The town being in Ontario meant this his kids, who were very young at the time could also pick up some English which could help them later on in their careers. He figured it would also motivate him to practice his English.

Johnathan's eldest son is turning 19 and has decided to go off to college. His son has previously told him that he does hope to come back to the town at a later stage.

With Moonbeam's housing initiative, Jonathan considers purchasing a home for his son so he can come back to it once he finishes college, or even rent it out long-term or on AirBnB if he needs the extra income.

Johnathan and his son weigh both options: purchasing a plot of land independently and building a small cabin on it, or outsourcing the building and design with MoonHome seeing as they have a co-creation initiative. They decide to outsource the design of the home and purchase it directly from MoonBeam as the benefits outweigh the cost. Approaching MoonBeam early on also allowed them to get a good deal on their new home.

Jonathan knows that there will soon be people from urban areas moving into town, he is a little apprehensive but after discussing with Moonbeam feels comfortable with the changes that will arise. He also hopes that these developments will give his kids a chance to start their own businesses if they choose to.



Location: Toronto Age: 32 Status: Single Occupation: Works for digital agency

ALEX

PERSONALITY

Introverted
Active
Adventurous
Hard Working
Risk Taker

REASONS TO USE

Mobility Limitations Enjoy the Outdoors High Technology

INTERESTS

Technology Outdoors Sustainability

REASONS TO BUY

New Community Affordable Home Ownership

After graduating college, she's spent the last five years working extremely hard to kickstart her early career. She hasn't been able to take the time for what she is truly passionate about being closer to nature.

The workload increased when the pandemic but Alex was able to work remotely- however, this meant she was never really out of the office- which was a mere 4 feet away from her bed. Months later, Alex had a massive panic attack and had to go on stress leave. Alex utilized this pause in her work life to reassess and re-evaluate her priorities. She had realized that she no longer wanted to live in a big city, and longed for a slower pace of life outside of work. Alex's mobility issues were making her life in the city even harder. She needed a more well-thought-out space, one that is closer to nature and where she can work remotely. She also wants to build strong relationships within her community seeing as might have unique needs.

Moonhome's Crowdsourced Community (MCC) Initiative draws on co-design facilitation to connect existing residents of a small town with potential newcomers interested in co-developing the communities they seek to build and inhabit. The fabric of the community - common understanding trust - is nurtured and a during the co-design process. MCC enables Alex to collaborate with their future neighbours to design a community that supports all of her diverse sets of needs. She also has better control of her carbon footprint with all the high tech ad-ons that MCC provides.



Location: Toronto Age: 38 Status: Married with one child Occupation: Freelance graphic designers

JALEN AND JULIE

PERSONALITY

Independent
Family Oriented
Entrepreneurs
Hard Working

REASONS TO USE

Pass Down to their Kids Teach Kids about the Outdoors Start Own Business Stability

INTERESTS

Work from Home Outdoors Raising a Family

REASONS TO BUY

Customizable
Home Ownership
Affordable
New Budding Community

Jalen and his wife Julie and are both working professionals supporting their child, and have another on the way. They're fortunate to both be making good consistent salaries, their jobs take up a large amount of both of their time as they also are trying to them to keep up with their mortgage payments. But their apartment is starting to feel too small for a family of four.

Both of them had hard-working parents who weren't as present as they would have liked. They don't want their kids to feel neglected. They also want to raise their children in a calmer environment, one that allows for more family activities like camping and road trips. Their city lifestyle does not allow them to create these memories with their family.

The couple considers making the most of the real estate spike in the GTA, selling their current condo, and settling down in a more affordable home, so they can cut back on their working hours and spend more quality time with their children.

Moonhome's initiative offers a path to freedom and independence from the fast-paced, unbalanced city lifestyle the young couple lives. It's also a gateway to the vast natural environments that their family can experience together.

APPENDIX D: BUSINESS MODEL CANVAS

Key Partners

Internal

Moonbeam Import/Export Moonbeam Data Science

Moonbeam Agrifoods

External

Construction Firm Architectural Design Agencies Custom Home Software designers Municipal economic development organizations Municipalities Marketing agency Federal Government Local post-secondary institutions Real Estate Agency Growcer hydroponics Banks and other financial partners

Key Activities

Construction

Cost reduction analysis commodity market analysis

Marketing activities

Co-design facilitation, community engagement networking, supplier relations, contracts and IP

Education on building disaster resiliency into communities

Key Resources

Physical - Land, basic infrastructure. Growcer hydroponics

Human- Employees & Contractors

Intellectual- Proprietary designs & Analytic models

Financial - Capital & Equity

Key Propositions

Affordable home ownership

Sustainably developed

Customizability

Customer Relationships

Personal Assistance Self-service Co-creation

Spreading Awareness -Online and traditional advertising campaign

Engaging Customers-Community events, Co-creation workshops

Acquiring Customers -

Customer **Segments**

Environmentally -Conscious Millennials

Channels

Real Estate Agency

Cost Structures

Land, Growcer units Employee salaries

Community leaders

Research Institutes

Legal costs, External partner fees (agencies, contractors, labour) Building materials

Revenue Streams

Standard & Custom built home sales Add-ons - Growcer subscription, smart home integration

Text in red represents the three key related components that will drive success for the business model.

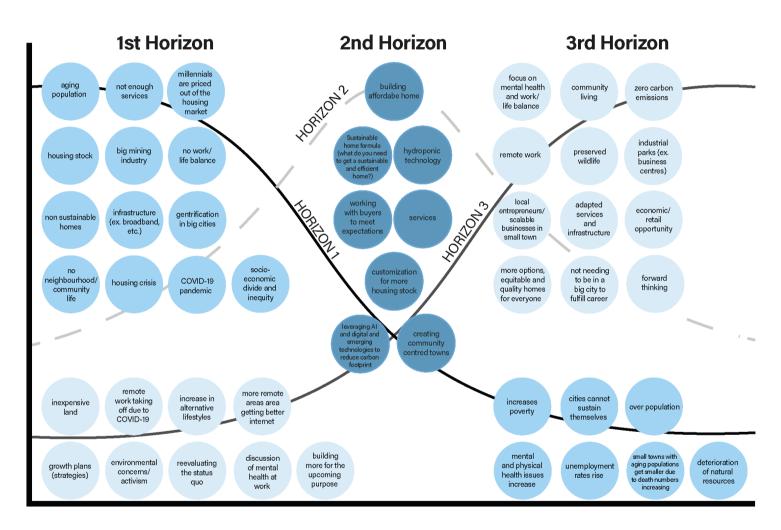
APPENDIX D: MOONHOMES SUB-BRAND IDEAS



MOON HOMES

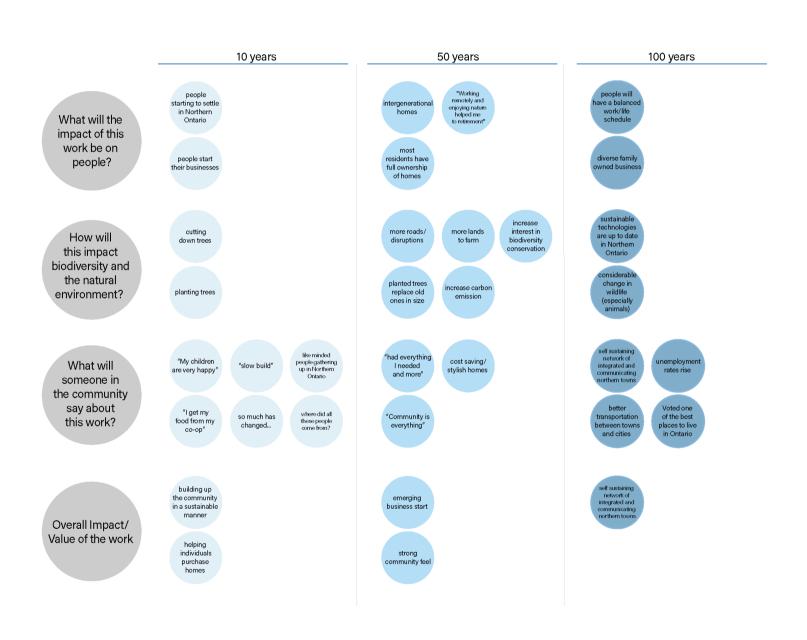


APPENDIX F: THREE HORIZONS



The three horizons exercise is a future visioning and planning tool to consider how the realities of the present are impacted by the past. This tool seeks to generate descriptors of different futures based on how the current state evolves. By identifying and describing the future we want, we can develop strategies and take action to move towards that future, and mitigate the possibility of an undesirable one.

APPENDIX G: LONG TERMISM & SEVEN GENERATIONS



APPENDIX H: CASE STUDIES: FAILED DEVELOPMENT PROJECTS

PRUITT-IGOE, USA



At the town's inception in 1949, Pruitt-Igoe was presented as a success because they believed they provided the community with what they needed. With the plans to develop mostly high-rise buildings, it was set up to be an ideal area for the future of the community. However, the developer designed the community to be segregated; white and African American residents having assigned and separated apartments. The white population was not open to sharing a space with people from the BIPOC community. Alternatively, black tenants did not feel welcome (Marshall, 2015).

Tensions grew and slowly the community was abandoned and the development demolished in 1970. What we can learn from Pruitt-Igoe is the need to encourage, integrate, and build a diverse and inclusive community where all members feel safe, especially racialized communities.

MILTON KEYNES, UK



Milton Keynes was intended to be an ideal place and the perfect suburban town in England. Though it had the physical infrastructure, it lacked the necessary social infrastructure, like town engagements, urban planning, and interesting design. Now, Milton Keynes is considered to be England's most boring town (Edwards, 2001).

Moonbeam should not limit itself in building the physical infrastructure, it should also consider social infrastructure to develop long-term and engaged communities.

ECO-TOWNS, UK



The eco-town initiative in England was an initiative to build carbon-neutral homes in different cities and towns in the UK. However, the initiative died due to residents and those interested in moving into these communities were not able to properly provide opinions or voice their concerns about how the community was developed. The surrounding communities were worried about gentrification occurring in these small towns and the deforestation of the surrounding forests to make room for land and homes. There was growing concern about gentrification and sustainable development. As many trees and forests would be cut down to leave room for allotted land and homes (Arnold, 2009).

It led to push back and distrust from the community towards the developers. This example demonstrates that we have to engage with the community to best meet their needs. Co-creation is a process that allows companies to see the gaps and address them through the help of their users while ensuring that we consider the land, the animals, the entire ecosystem.

