

MANAGEERING BALANCED WAY OF LIFE: MANAGING & ENGINEERING COMMUNITY PLATFORMS USING ENDOWMENTS, MARKETPLACES, & INCUBATORS

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ABSTRACT

The Continuous Global Problem section explains that every nation is facing the continuous challenge of how to provide all of its citizens with a high and rising standard of living. The Porter Competitiveness Theory section summarizes the national competitiveness framework developed by Professor Porter from the Harvard Business School who argues that the global problem can be solved by improving national prosperity, which is largely dependent on building business locations that foster competitive firms that generate jobs and lead to economic growth. Finally, the authors describe in the Competitive Platform Solution section how to use the Porter theory to engineer and manage a competitive community platform that disadvantaged locations can join so local, national, and global populations can lead a balanced way of life and simultaneously improve local, national, and global prosperity.

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1. INTRODUCTION

The central idea of this paper is that every nation is facing the continuous global problem of how to provide all of its citizens with a high and rising standard of living. Professor Porter from the Harvard Business School argues that this global problem can be solved by improving national prosperity, which is largely dependent on building business locations that foster competitive firms that generate jobs and lead to economic growth. The authors describe how to use Porter theories to engineer and manage a competitive online community platform that allows local, national, and global populations to not only lead a balanced way of life but simultaneously improve local, national, and global prosperity. Specifically, the authors use the Porter competitiveness frameworks and platform industry research to propose four steps to engineer and manage a competitive community platform using endowments, marketplace, and incubator: (i) analyze the existing platform industry structure, (ii) position the new platform in the industry, (iii) engineer competitive strategy for a new platform, and (iv) manage operational efficiencies for a new platform. Engineering and managing a competitive community platform is important because disadvantaged locations may not have the resources to build their own local competitive business location to improve national prosperity however these disadvantaged locations may be able to join an existing competitive community online platform that has been engineered and managed using endowments, marketplace, and incubator to not only create a competitive online business location but also allows community members to lead a balanced way of life and simultaneously improve local, national, and global prosperity. As such, the contribution of this paper is that it shows local, national and global policymakers how to integrate several Porter frameworks along with platform industry research to engineer and manage a competitive online community platform that helps improve local, national, and global prosperity. As well, it shows managers of existing service providers that they will have to adopt an online community platform to integrate offline and online services to remain competitive in the future.

2. CONTINUOUS GLOBAL PROBLEM

Every nation is facing the common problem of providing all of its citizens with a high and rising standard of living. Although there is no universal standard of living, the UN Sustainable Development Goals for 2030 provide insight into why a high national standard of living is important. As well, although, there is no universal measure of the national living standard, there are annual global rankings that use a large diverse set of indicators, which show that all nations continuously struggle to make complex policy decisions to provide their citizens a high standard of living.

2.1 UN Sustainable Development Goals

The UN Sustainable Development Goals support the idea that every nation is facing the common problem of providing all of its citizens with a high and rising standard of living. Specifically, several of the goals adopted by all of the UN Member States in 2015 (“Transforming our world”, 2015) demonstrate that a high national living standard is important because it is the foundation to provide people with basic human needs. Currently more than 10% of the world population is hungry which means these people are more likely to be prone to diseases, therefore less productive and unable to earn more to improve their lives. Moreover, about 15% of the world population live in slums which means that not only is the quality of life poor but their life expectancy is lowered. As well, about 30% of the world population doesn’t have access to safe drinking water while about 40% don’t have access to basic sanitation services which means that these people contract water and sanitation related diseases. Additionally, 50% of the world population is without essential health services which means that millions of people die every year from preventable medical conditions. Furthermore, 55% of the world population lacks minimum proficiency in reading and math which means these people may not escape poverty through upward socioeconomic mobility. Finally, inequalities based on gender, age, race, and other factors are wide spread throughout the world which means that a large portion of the world is excluded from opportunities, services, and chance for a better life. A high standard of living is not only important to provide local populations with basic human needs but also to provide global security for everyone. Specifically, when low standards of living exist throughout the world due to the above inequalities, it causes a decrease in social cohesion, increasing political/social tensions, leading to global conflicts and thus negatively impacting everyone’s standard of living in the long term.

2.2 Global Competitiveness Report Rankings

The annual Global Competitiveness Report, developed by the World Economic Forum for the past 40 years, supports the idea that nations continuously struggle to make complex fiscal policy decisions to help maintain and grow the national living standard. Specifically, the 2019 report (“Global Competitiveness Report”, 2019) used 103 indicators based on data from international organizations and executive opinion surveys to not only rank 141 economies but to gain insight into how to unlock economic growth which is essential for improving living standards. In fact, the report claims that all economies can improve their rankings which means that nations struggle to find bold leadership to make proactive policies to enhance living standards. As well, the report shows that over 90% of the economies had a change in their ranking from 2018 which means nation rankings are not only based on how each nation struggles to implement their own policies but also depends on the degree and speed to which other nations struggle to improve their economies based on new best practices. Moreover, only three of the G20 nations were able to improve their rankings from 2018 which means that nations at the top of the rankings may have to struggle even harder than other nations to grow their national living standard. Finally, although the report recommends that all nations develop future fiscal policies that incorporate increasing equality of opportunities, fostering fair competition, updating tax systems, and fostering competitiveness-enhancing investments, the report does not advise how to make specific policy decisions which means that even with the best of intentions, nations struggle to transform best practices into specific fiscal policies that will help improve the national standard of living.

2.3 Social Progress Index Rankings

The annual Social Progress Index, developed by the Social Progress Imperative for the past six years, also supports the idea that nations constantly struggle to maintain and grow a high standard of living. Specifically, the 2019 report (“Social Progress Index”, 2019) used 51 social indicators in 12 components to not only rank 149 nations but to provide insight to improve social progress through better public policy and investment decisions. In fact, the report claims that countries with similar GDP per capita achieve different levels of rankings which means some countries are able to implement policies better than their peer nations with the same economic progress. Furthermore, the report categorizes the 149 nations into six tiers of social progress where for instance oil rich nations with high GDP per capita are in the second lowest tier which means that despite the availability of strong economic progress these nations are struggling to see economic progress be translated into social progress. Moreover, the report claims that although there is a strong relationship between GDP per capita and a higher rank, the relationship is not linear, instead, for low income nations, a small change in GDP per capita can lead to large ranking changes, while for high income nations, a large change in GDP per capita only leads to a small ranking change which means that although all nations struggle to improve social progress, it is relatively easier for low income nations to use best practices to improve their social progress while it is relatively harder for high income nations to develop innovative policies to improve upon their existing high social progress ranking. As well, despite 92% of the nations having improved their social progress over the past six years, the world collectively is underperforming with respect to water and sanitation services which means that despite all of the progress, nations are still struggling to determine how best to address one of the most basic human rights. Finally, although most nations have improved over the past six years, the US is one of only four nations that declined in its social progress ranking due to its poor performance in inclusiveness, safety, rights, and health which means that even the most powerful nations in the world also struggle with at least a subset of the social progress index components.

3. PORTER COMPETITIVENESS THEORY

To solve this common problem, Professor Porter from the Harvard Business School provides a series of integrated competitive frameworks (Porter, 2008). In particular, based on Porter's research on why some nations, regions, and locations are more prosperous than others (Porter, 1990), he claims that in order for nations to provide its citizens with a high and rising standard of living, nations have to develop, maintain, and grow national prosperity. Specifically, Porter argues that in the long-term, nations cannot rely only on their inherited prosperity based on natural endowments, instead, national prosperity must be generated by competitive locations that compete to deliver value as a business location, generating competitive companies that compete to deliver value to customers, generating jobs and leading to economic growth. This section summarizes the big ideas in the Porter Competitiveness Theory shown in Figure 1 in order to learn how to manage and engineer a competitive location.

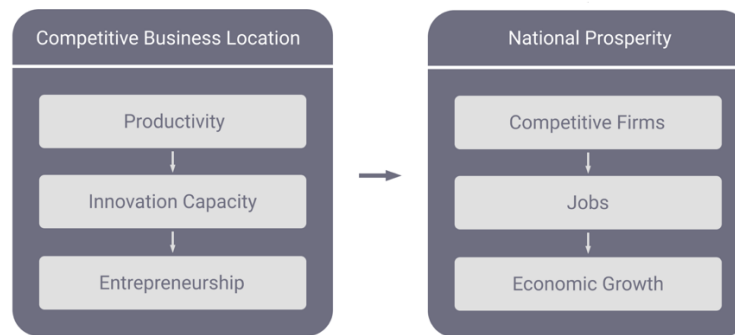


Fig. 1. Overview of Porter Competitiveness Theory

3.1 Productivity Determines Competitiveness

Local competitiveness is largely determined by long-term productivity with which a location uses its human, capital, and natural resources. Although macroeconomic initiatives set the potential for high productivity, macro policies, social infrastructure, and political organizations are not sufficient for long-term productivity. Instead, productivity is determined largely by microeconomic initiatives, which build a local business environment that is forward looking, dynamic, and challenging with respect to four conditions. First, competitive locations make the most sustained, heavy, and specialized investment in the most important input conditions for its products and services which gives its companies superior productivity over rivals because the higher quality or low-cost specialized inputs are scarce and difficult to imitate. Second, competitive locations have the most sophisticated local demand conditions for its products and services which gives its companies superior productivity over rivals because they can identify emerging buyer needs and are pressured to innovate faster than rivals. Third, competitive locations have the most mature cluster of high concentration of firms, suppliers, related industries, and specialized institutions which gives its companies superior productivity over rivals because of cost effective local inputs and opportunity for innovation due to close working relationships. Finally, competitive locations have the most sophisticated company strategy and operations which gives its companies superior productivity over rivals because of strategic positioning and operational efficiencies.

3.2 Innovation Capacity Upgrades Competitiveness

Local competitiveness is enhanced by innovation capacity initiatives which help grow productivity because it allows innovation to occur faster and easier. First, competitive locations create common innovation infrastructure by investing in innovation resources and developing innovation policies. Second, competitive locations develop clusters in areas where the location can develop a critical mass of firms, knowledge, and expertise. Finally, competitive locations invest in entrepreneurial capacity through skills for entrepreneurship training and mentorship, capital for start-ups, infrastructure for start-up incubator services, policies to ease incorporation, and culture to accept risk of failure.

3.3 Entrepreneurship Translates Competitiveness into Prosperity

Entrepreneurship translates local competitiveness into national prosperity when entrepreneurs take the financial risk to start and operate competitive companies. Specifically, an entrepreneur positions the company in the industry using a distinct value proposition created with a tailored value chain that involves trade-offs and fit in the value chain activities. As well, the entrepreneur uses management best practices to achieve operational efficiencies in functional areas like logistics, operations, marketing, finance, and human resources. As such, entrepreneurs deliver value to their customers, generate jobs, and lead to economic growth, thus, helping improve national prosperity and standard of living.

4. COMPETITIVE PLATFORM SOLUTION

This section uses the PorterCompetitiveness Theory to describe four steps to engineer and manage a competitive platform shown in Figure 2 that competes with other online platforms and offline locations to deliver value as a business location, generating competitive companies that compete to deliver value to customers, generating jobs and economic growth thus improving local, national, and global prosperity.

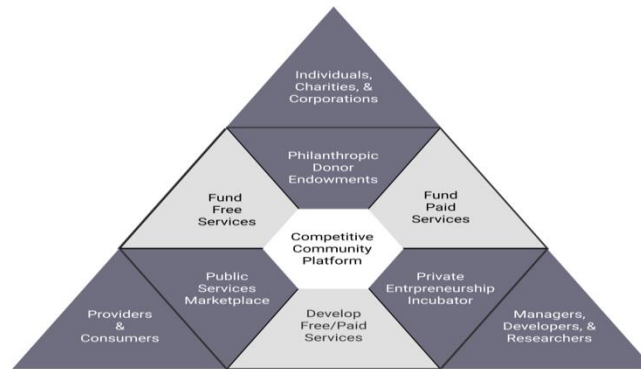


Fig. 2. Key Components of Competitive Community Platform

4.1 Step 1: Analyze the existing platform industry structure

Increasingly, platforms are a hybrid of pure innovation platforms, like Microsoft Azure that provide a technology foundation to allow customers to build their own innovative services, and pure transaction platforms, like PayPal that provide a marketplace for producers and consumers to perform transactions. As such, the platform industry uses technology to create an online community in which platform members help create value by developing platform specific innovative services and interacting in platform specific transactions. There are five drivers in the platform industry(Zhu &Iansiti, 2019). First, network effects refer to same-side effects which means that as the number of platform users increases, it makes the platform more attractive for new users to join. It can also refer to cross-side effects which means that as the number of producers increases, it makes the platform more attractive for consumers and vice versa. Second, network clustering refers to a platform that is able to interconnect its local clusters of members into a global community. Third, disintermediation risk refers to when platform members bypass the platform and instead make direct interactions. Fourth, multi-homing refers to when members use multiple platforms. Finally, network bridging refers to when a platform expands into additional market segments.Before positioning a new entrantin anexisting industry, its essential to analyzethe industry structure by understanding how the platform drivers (Zhu &Iansiti, 2019)shape the Porter Five Forces(Porter, 2008)in the industry, which influencethe industry average prices, costs, and profitswith respect to not only rivals but also industry suppliers, buyers, substitutes, and new entrants.Overall the platform drivers result in a highly competitiveplatform industry structure because the most influential forces in the platform industry, rivalry and new entrants, are both high; whereas, the least influential forces in the platform industry, suppliers, buyers, and substitutes, are all low.

The rivalry force in the platform industry is high. Rivals include broad platforms like Google, Facebook, Amazon, Apple, and Microsoft that serve many market segments; whereas, focused platforms like Salesforce, Airbnb, Uber, Trivago, and Coursera serve a single or limited number of market segments. The network effects and network clustering drivers in the platform industry produce high rivalry in the industry. In order for a platform to reach a critical mass of platform members and benefitfrom network effects to become a dominate platform in the industry, the platform not only has to spend money to attract members but it usually has to forego substantial revenues which significantly erodes the average industry profitability.As well, although demand conditions in the industry are increasing which should moderate rivalry, the network clustering driver in the industry requires platforms to invest heavily in interconnecting its local clusters into a global community which further increases the intensity of rivalry because high fixed costs further reinforce a need to reach a critical mass of members in a short duration.As such, the industry simultaneously faces pressures that lower average industry revenues while increasing average industry costs thus eroding average industry profitability.

The new entrant force in the platform industry is also high. New entrants includepotentially any business in a market segment that is currently using a traditional product business model rather than platform business model. For instance, a traditional hospital could transform itself into a healthcare platform. In fact, for long-term survival, most traditional non-platform businesses may have to transform into a platform business, buy an existing platform business, or at least join a platform.As well, a core technology platform supplier like Intel could take advantage of network bridging to pursue a related diversification corporate strategy to enter the platform industry, which would allow it to leverage shared activities between its core businesses to gain a potential competitive advantage in the platform industry. As such, although network effects and network clustering increase barriers to entry into the platform industry for startups, large companies with strong financial capacity are not deterred. Instead, due to industry multi-homing and network bridging along with a general lack of

required industry economies of scale, brand loyalty, and absolute cost advantage, financially strong firms can enter the platform industry, which would further intensify rivalry and further result in erosion of average industry profitability.

The supplier and buyer forces in the platform industry are low. Although network effects, disintermediate risk, and multi-homing platform drivers are linked to supplier and buyer forces, these drivers do not significantly influence the overall supplier and buyer forces. The platform suppliers can be categorized into three types. First, there are a few large core technology suppliers like IBM for hardware, Oracle for software, and Microsoft for hosting. Since there are several core technology companies in hardware, software, and hosting, these suppliers do not have significant bargaining power over the platform firms. Second, there are a large number of small software development suppliers that add functionality to the platform and add value for other members. Since this supplier category is significantly fragmented in its own industry, it does not have significant bargaining power over the platform firms. Finally, there are hundreds of millions of users that usually serve as free content producing suppliers. Since these individual suppliers are also free users of the platform, this supplier category also does not have significant bargaining power. Similarly, the platform buyers can also be categorized. First, individual members buy products and services sold by platform producers through marketplaces like Amazon. Second, corporate members pay the platform to advertise to individual members. Since each buyer in both categories represent a negligible percentage of the platform's overall revenue, the buyers don't have significant bargaining power in the platform industry. As such, supplier and buyer forces in the platform industry do not have a significant impact on the average industry revenues, costs, or profitability. The threat of substitute force is also low in the platform industry. Although, online platforms continue to compete with substitute services from offline companies and the disintermediate risk exist, the substitute force does not have significant impact on the platform industry structure because the platform services create significant value over non-platform services. As such, as long as platform services are not excessively priced high, this force does not have significant impact on the average industry profitability. In the future, although social, technological, economical, political, and demographical trends are all likely to influence the magnitude of each force, government regulations on the platform industry are likely to have the largest impact on the industry structure. Specifically, many countries are debating whether platform businesses should be regulated like their traditional non-platform substitute counterparts with respect to safety, insurance and other regulatory requirements, which will have an impact not only on how liability but also how revenues and costs are shared across all of the industry participants (Van Alstyne et al., 2016). As such, platforms need to be proactive to address trust, transparency, fairness, and other issues raised by policy makers because it could have a significant impact on the average industry profitability.

4.2 Step 2: Position new platform in the industry

In order to be successful in the platform industry, a new competitive platform should position itself relative to the five forces using the Porter Generic Strategies (Porter, 1998), which are cost leadership, differentiator, focused cost leadership, or focused differentiator. The cost leader position can achieve sustained above average industry profitability. In general, the cost leader provides a no-frills product/service which meets the basic customer needs. Furthermore, the cost leader designs a low-cost structure and relies on large volume of sales with small margins to achieve above average industry profitability. The differentiator position can also achieve sustained above average industry profitability. In general, the differentiator enhances the no-frills product/service with extra value adding features, which are valued by some customers who are not satisfied with the no-frills product/service. Furthermore, while the differentiated product/service increase the cost structure, it significantly increases the value for some industry customers thus enabling high margins from a smaller number of customers to achieve above average industry profitability. The focused cost leader and focused differentiator positions can also achieve above average industry profitability. While the cost leadership and differentiator positions achieve above average industry profitability by positioning with a broad focus in the industry with respect to needs, variety, and/or access, the focused cost leader and focused differentiator positions achieve above average industry profitability by positioning with a narrow focus in the industry with respect to needs, variety, and/or access.

The stuck-in-the-middle (SITM) positions, simultaneously emphasizing both cost leadership and differentiation, do not achieve sustained above average industry profitability. In particular, the SITM positions do not have cost structures as low as the pure cost leadership positions thus the SITM positions will have lower margins and therefore lower profits than the cost leaders. As well, the SITM positions will not have as differentiated products/services as the pure differentiator positions thus the SITM positions will not have as high margins and therefore lower profits than the differentiators. As such, SITM positions will not achieve sustained above average industry profitability. Based on the platform industry analysis in step one, a cost leadership position can allow a new platform to successfully position itself in the platform industry to compete with existing online platforms and existing offline locations to deliver value as a business location, generating competitive companies that compete to deliver value to customers, generating jobs and economic growth thus improving local, national, and global prosperity. Although successfully positioning a new platform as a differentiator is also possible, there are already many successful incumbent platforms occupying those differentiated positions, including Google, Facebook, Amazon, and Microsoft. As well, although successfully positioning a new platform as a focused cost leadership or focused differentiator is also possible, due to the industry drivers for network effects, network clustering, and network bridging these focused positions may be more challenging to sustain in the long term.

4.3 Step 3: Engineer competitive strategy for new platform

The Porter Competitive Strategy framework (Porter, 1996) with six elements is used to engineer a competitive strategy for a new platform based on a cost leadership position (Khan, 2013). First, the competitive community platform is engineered with the goal of achieving sustained above average industry profitability. Specifically, companies should not make decisions that maximize only on profits, people, or planet, instead, companies should make decisions that optimize between profit, people, and planet. Focusing on profits alone cannot lead to sustainable success because in the short term, a company can make decisions to maximize profits by decreasing costs that harm the people and/or the planet but then the government, consumers, society, and/or other stakeholders may take counter actions against the company which could decrease its revenues and/or increase its costs, therefore, decreasing long-term profits and leading to below average industry profitability. Similarly, focusing on people and/or planet alone will lead to bankruptcy because without a profitable company, the long-term cost of benefiting the people or planet cannot be sustained. As such, successful companies achieve above average industry profitability by making decisions that optimize the triple bottom line: profits, people, and planet. Second, the competitive community platform is engineered to have a distinct value proposition to serve its platform members to meet their need to collaborate with other members to create a community with a balanced way of life at a low relative price. A balanced way of life means platform members especially from disadvantaged locations will have access to integrated online and offline services, where free AI-automated online services and paid human delivered offline services will enable personal adaptive social services that are productive, private, safe, and ethical for all platform members. For instance, components of social services like education and healthcare that can be delivered online using automated systems will be provided for free by the platform, whereas, components of social services that require either online or offline human interaction will be provided by platform service providers at a competitive prices.

Specifically, as shown in Figure 2, the community platform serves three platform customer segments. Endowment members are served to meet their need to sponsor or invest in new platform-based services at a low relative cost. In particular, individual and corporate donors are served to meet their need to sponsor free AI-automated services that are aligned with their mission while charitable members are served to meet their need to invest in revenue-generating paid services. As well, the community platform serves marketplace members, such that, providers and consumers of professional services like in healthcare, education, and entertainment to meet their need to integrate both offline and online services via a community platform at a low relative price. Finally, the community platform serves incubator members—software developers, AI researchers, and management professionals—to meet their need to collaborate with each other to create and operate innovative new platform specific hybrid services at a low relative cost. Third, the platform is engineered to have a tailored value chain of activities that combines its philanthropic donor endowments, public services marketplace, and private entrepreneurial incubator to create a community of members that endow, develop, provide, and consume both free and paid platform services to enable a balanced way of life. Specifically, as shown in Figure 2, proposals for free AI-automated services are submitted by marketplace members to endowment members who provide capital to sponsor the development of the free services that benefits all platform members. The marketplace members then use the endowment capital to collaborate with the incubator members to develop the free service which is then hosted on the marketplace. Finally, the endowment sponsored free service is registered with the endowment before it is made available on the marketplace for all platform members to use. Similarly, as shown in Figure 2, proposals for the paid services are submitted by incubator members to endowment members who provide capital to invest in the development of the for-profit services in return for sharing revenues generated from the use of the paid services by marketplace consumers and providers. The incubator members then use the investment capital to collaborate with one offline service provider from the marketplace along with management, AI, and software experts from the incubator to develop an innovative paid service that is hosted on the marketplace so other offline service providers in the same service category can pay the incubator members to use the for-profit service to generate revenues from marketplace consumers who receive hybrid offline and online services. Finally, incubator members share monthly revenue generated on the marketplace with the endowment investors and the offline service provider who helped develop the new service.

Fourth, the platform is engineered to have trade-offs in both the value proposition and value chain to make the cost leadership position sustainable and not easily imitated by rival community platforms. Specifically, as shown in Figure 2, there are multiple trade-offs in the platform's value proposition based on its PASS (Personal Adaptive Software Services) algorithms. The PASS Personal Assistant algorithm allows platform members to be more productive by confidentially delegating tasks to their personal digital assistant where the trade-off is that members require a higher level of technology literacy to use all the features. The PASS Friends & Family algorithm enables members to have a more private presence on the community platform by preventing non-family and non-friends from unsolicited interactions where the trade-off is adding new friends is a more lengthy discovery process through shared community projects. The PASS Zero Ads & Spam algorithm enables members to be safe from data mining of personal information for advertising or other third-party revenue generating initiatives where the trade-off is members pay a nominal annual membership fee. The PASS Member Verified algorithm encourages members to be more ethical on the platform as each platform member is verified for name, address, age, gender, education, qualifications, and payment method where the trade-off is not serving people and companies that do not want to support a balanced way of life. Similarly, there are multiple trade-offs in the platform's value chain to engineer a

balanced way of life using endowments, marketplace, and incubator. The platform endowment activities specialize on sponsoring free AI-automated services and investing in revenue generating paid services where the trade-off is specializing on intellectual property assets rather than diversifying using traditional financial securities. As well, the platform endowment donors and beneficiaries are both platform members where the trade-off is developing a specialized focus rather than a broad focus. Additionally, the platform uses internal marketplace and incubator members to manage the development of the free and paid services where the trade-off is establishing a specialized collaboration rather than using broad collaboration with external third-parties.

The platform marketplace activities allow offline services providers to enhance their paid services by integrating with a broad range of free online services where the trade-off is being part of a sophisticated service offering creating a more valuable customer experience versus being an independent service provider with full control over a more limited customer experience. As well, the platform marketplace offers consumers a more sophisticated service experience where the trade-off is members paying an annual membership fee to have full control over the integrated services versus no membership fees and potentially having personal data used to generate ad revenue or other third-party data sharing revenue model. Additionally, service providers become part of a transparent marketplace where their prices and outcomes are published so consumers can make informed decisions about which service provider to choose where the trade-off is choosing to be part of a competitive marketplace where superior value creating service providers are rewarded with more customer purchases versus keeping outcomes confidential and having consumers make selection based on non-competitive factors like marketing campaigns. The platform incubator activities create a business environment to spin off platform dependent services that enhance the platform core services where the trade-off is lower risk with lower return to develop and operate a platform dependent service versus higher return with higher risk to develop an independent start-up. As well, the incubator also relies on capital from platform endowments where the trade-off is more convenient and specialized funding versus more competitive and independent funding sources like venture capitalists. Additionally, the platform incubator collaborates using its global network of micro-locations including disadvantaged locations with extreme demand conditions that may lead to innovative new ways to design services versus incubators in a single business location with varying levels of quality in the local business environment.

Fifth, the platform is engineered to have fit between its value chain activities to reinforce the low-cost competitive advantage of the community platform. The platform endowment, marketplace, and incubator value chain activities reinforce each other to create a community platform that serves as a competitive business location with sustained productivity with which it uses its human, capital, and endowment resources. Specifically, endowment funds are used by the incubator and marketplace to make sustained, heavy, and specialized investments into all micro locations to educate members about software development, AI research, management frameworks, and service specific knowledge. As well, the platform has access to sophisticated local demand conditions from its marketplace members who select competitive services based on marketplace published stats on prices and outcomes, incubator members who identify new hybrid services in traditional online service segments, and endowment members who identify extreme demand conditions in disadvantaged locations which help develop innovative global solutions. Additionally, the platform is able to develop a mature cluster of firms by leveraging a global network of endowment donors, service providers, service consumers, and incubator professionals. Finally, the platform requires the use of sophisticated strategy and operations frameworks that are facilitated by incubator members in collaboration with service professionals in the marketplace in order to develop unique positions in the same service sector leading to above average industry profitability that are approved for funding by endowment members.

As well, the platform endowment, marketplace, and incubator value chain activities also reinforce each other to create a community platform with innovation capacity to enhance the competitiveness of the community platform. Specifically, a common innovation infrastructure of resources and policies is developed by the incubator members that are then supplemented by specific resources and policies for each service sector and disadvantaged location by marketplace and endowment members respectively. As well, the platform creates clusters with critical mass of firms, knowledge, and expertise where endowment donors provide necessary capital to include the disadvantaged locations while marketplace members provide necessary access to specific service sectors, and incubator members apply management, software, and AI techniques to each unique cluster. Finally, the platform creates entrepreneurial capacity by endowment members that provide capital for low risk, low return platform spin-off services, marketplace service members provide a pilot offline site to integrate online and offline services, incubator members provide entrepreneurial training, mentorship, and services to make spin offs successful, and all members promote a culture of risk of failure. Additionally, the platform endowment, marketplace, and incubator value chain activities also reinforce each other to create a community platform with entrepreneurial spirit to translate the competitiveness of the community platform into local, national, and global prosperity. Specifically, endowment members provide essential capital to pursue platform spin-offs with low risk, low return with an emphasis on helping disadvantaged locations, while marketplace members provide sector specific expertise and pilot site to design innovative platform spin-off services to be used by other service providers in the same service sector, while incubator members provide management, software development, and AI expertise to design, develop and manage spin-off services. As well, the platform spin-offs not only create specific value for the consumer and help them lead a balanced way of life

through integrated offline and online services but they also help create jobs, economic growth, and prosperity on local, national, and global levels. Sixth and finally, the platform is engineered to have continuity over at least a five year period to enable the community platform to successfully develop its distinct value proposition using its tailored value chain based on trade-offs and fit.

4.4 Step 4: Manage operational efficiencies for new platform

Along with a competitive strategy to achieve above average industry success, platforms need to manage operational efficiencies using the latest management best practices for each of the primary and support activities in the platform's value chain (Porter, 1985). Platforms fail because of six failures by management (Van Alstyne et al., 2016). First, failure to optimize openness between too little freedom for members preventing network effects versus too much freedom leading to loss in control of the platform. Second, failure to engage members to show the benefits of collaborating through feedback and rewards. Third, failure to share surplus value created on platform with all members to incentivise continuous participation. Fourth, failure to launch the right side of providers and consumers in order to take advantage of network effects. Fifth, failure to attract critical mass of members due to emphasis on revenue generation from members. Finally, failure to build the community because trying to sell the products. The above platform failures suggest a new cost leadership positioned community platform should use at least six value chain best practices to manage operational efficiencies in order to have above average industry success. First, the platform needs supply chain management best practices otherwise the platform could experience failure to build the community. For instance, SCM best practices require the platform to synchronize with endowment, marketplace, and incubator members in order to design and operate an responsive supply chain (Christopher, 2011) between all stakeholders. Second, the platform needs Operations Management (OM) best practices otherwise the platform could experience failure to launch the right side. For instance, OM best practices require the platform to practice understanding the nature of demand in the platform with respect to endowment, marketplace, and incubator members then design a value chain that best satisfies the demand (Fisher, 2004). Third, the platform needs marketing best practices otherwise the platform could experience failure to engage members. For instance, marketing best practices require the platform to practice Marketing 3.0 (Kotler et al., 2010) techniques by targeting each member's mind, heart, and spirit with functional, emotional, and spiritual fulfillment using value-driven concepts in order to provide a balanced way of life with platform services.

Fourth, the platform needs service best practices otherwise the platform could experience failure to optimize openness. For instance, service best practices for the platform involves building a balanced culture (Al-Hashmi, 2007) based on freedom to choose, consultation with stakeholders, enjoin what is good, forbid what is bad, and foster values for justice, fairness, equal opportunity, mutual support, and tolerance. Fifth, the platform needs human resource management (HRM) best practices otherwise the platform could experience failure to share surplus value. For instance, HRM best practices require the platform to practice recognizing daily work progress (Amabile & Kramer, 2010) for all stakeholders which increases motivation and results in drive to succeed. For instance, endowment members get recognition for supporting platform members, marketplace consumer members get access to competitive services to lead a balanced way of life, marketplace provider members get value enhancing services to integrate offline and online services to better serve their customers, and incubator members engineer a competitive marketplace service. Finally, the platform needs corporate finance best practices otherwise the platform could experience failure to attract critical mass of members. For instance, corporate finance best practices require the platform to practice using capital budgeting techniques (Luehrman, 2016) to help prioritize among multiple projects when there are resource constraints to grow the platform using network effects.

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