

# Business Models: Creating New Markets and Societal Wealth

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This thought piece proposes a framework for addressing the challenges of poverty and human suffering so widespread around the world. Based on the WSWP action research program, we suggest that visionary businesses can play a role in creating new business models that open up new markets, and simultaneously attend to societal wealth improvements. This framework should be of great interest to global firms intent on creating new markets for their own futures. One of the critical problems managers face in opening up new markets is to maintain fiduciary responsibility in the face of little, if any, market information. We consider such environments to be characterized by significantly high – or near-Knightian – uncertainty, and propose a framework for designing business models that simultaneously attend to the planning and project evaluation concerns of such firms, as well as the societal needs of the activity's proposed beneficiaries.

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*If you don't know for sure what will happen, but you know the odds, that's risk ... if you don't even know the odds, that's uncertainty*

(Frank Knight<sup>1</sup>)

## Introduction

This article proposes an alternative approach to the charitable aid model in the challenge of improving the lot of large numbers of the hundreds of millions of human beings mired in abysmal poverty. We argue that many of their problems can be massively ameliorated by developing business models that create new markets, even in the face of high uncertainty, and which simultaneously attack such problems and generate profits. Further, we suggest this approach should be of considerable interest to visionary global firms interested in forging new markets for their own future offerings.

There has been rapidly escalating concern over recent years at the lack of effectiveness of many hugely expensive investments into improving the human condition.<sup>2</sup> As a result of this

disappointment with traditional development approaches, we are witnessing an outpouring of revenue seeking alternatives to traditional economic development models, with the pursuit of social upliftment via revenue- and profit-seeking manifested in activities such as social investment funds, microfinance activities such as those of the Grameen Bank in Bangladesh (reported by Yunus et al. elsewhere in this issue<sup>3</sup>), and the corporate social responsibility programs of many multi-national corporations.<sup>4</sup> The alleviation of human suffering through creation of wealth generating enterprises has become a focus for business, NGOs and not-for-profits alike. Organizations from the Gates foundation to local universities have, and continue to, invest in so-called ‘social enterprise’ programs whose goals are to both solve big societal problems and to demonstrate revenue sustainability, if not generate profits. So we are seeing the emergence of new types of business enterprises that could well grow into an entire new global economic sector, predicated on poverty reduction via the creation of business models that pursue *both profits and societal wealth simultaneously*.<sup>5</sup> This sector should be of deep interest to large, traditionally profit-focused firms, which may be able to create and grow huge new markets (and subsequent new profit streams) for their offerings.<sup>6</sup> If successful, the outcomes of such intra/entrepreneurial efforts could create a ‘virtuous cycle’: the greater the profits made, the greater the incentive for the business creator to grow the business; and the more societal problems are alleviated, the greater numbers of beneficiaries can join the mainstream of global consumers.

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*We could well be seeing [the growth of] an entire new global economic sector, predicated on poverty reduction via the creation of business models that pursue both profits and societal wealth simultaneously.*

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But the key phrase here is ‘If successful..’. Many of the societal problems referred to above are currently highly intractable - as the iconic economist might put it: ‘*If the problem were tractable, some profit-seeking enterprise would already be making profits resolving it!*’ The general condition that leads to some of the most distressing states of poverty is that of market failure: despite enormous demand for desperately needed products and services in many cases markets simply do not exist – so new ones must be created. Moreover, despite the increasing popularity of (and the vast amounts of money spent on) the social enterprise construct, little theory and less empirical evidence has focused on understanding the conditions under which organizations trying to fulfill what are often competing objectives can operate, let alone prosper. Nor is there much said about generating markets that are new to the world – in other words creating markets, as opposed to just entering them – or what might guide managers in the development of viable business models in such entirely new market spaces. A recent addition to the literature by Santos and Eisenhardt explores ‘*power as the underlying boundary logic ... by which entrepreneurs compete in highly ambiguous markets*’. Their paper is characteristic of organization theory in its concern with organizational boundaries, power distribution and human action.<sup>7</sup>

In contrast, our article has a strategic focus and is concerned with organizational outputs, inputs and cause-effect relations – it is a ‘thought piece’ that considers the challenges in building business models under conditions of high uncertainty. We discuss the preliminary business model development process used in the Wharton Societal Wealth Program (WSWP) that has evolved to create markets in emerging economies, and describes our ‘principles-in-the-making’ for creating new business models in emerging market environments that both enhance societal wealth *and* make private sector profits. We take the theoretical perspective that these ventures are operating in ‘near-Knightian’ conditions (which we define below), and present the conclusions we have drawn from the ten WSWP field research projects created with the dual missions of ‘doing societal good while doing well’, reporting mini case examples of four of these enterprises. The cumulative experience from these projects has led us to believe that we are in a position to share the set of principles

we currently use, in the hope that they can help other managers and entrepreneurs engaged in similar market creation activities, and create a dialogue with such managers as they elaborate on their experiences. We use the term ‘prenormative’ to signal that these are ‘principles-in-the-making’, rather than hard prescriptions that follow decades of effort under manifold circumstances.

## Near-Knightian uncertainty

John Adams extends his commentary on Knight’s work (quoted at the start of this article) to common practice:

*Uncertainty as defined by Knight is inescapable. It is the realm not of calculation but of judgment. There are problems where the odds are known, or knowable with a bit more research, but these are trivial compared with the problems posed by uncertainty... If one retreats from the unattainable aspirations of precise quantification, one may find, I believe, some useful aids for navigating the sea of uncertainty.*<sup>8</sup>

For current purposes, we can regard *near*-Knightian circumstances as being those where *almost* anything can happen. In such high-uncertainty contexts, the range of values of the environmental variables impinging on possible outcomes is wide and, importantly, there is no way of assigning a probability to their value other than assuming all values in the range are equiprobable. In such situations the model builder just does not know: so the initial management mindset must be characterized by the desire to reduce *uncertainty* to *risk*. In near-Knightian spaces a large number of approaches might be pursued, all of which seem equally *possible*. The challenge is to develop from these worlds those which are *plausible* for solution-seekers, and then to reduce the uncertainty of these to the point where *probability* distributions can be assigned to expected outcomes,<sup>9</sup> making them *plannable*, i.e. developed to the point where more conventional risk assessment and valuation methodologies can be deployed. This process of reducing uncertainty to risk (simplified as Figure 1) creates a basis from which to experiment, learn and develop a feasible business model — if this is possible — and abandon at little cost if it is not. We further suggest that when you simply don’t know what will happen — when there are as many possible answers as there are questions — there is significant opportunity for *effectuation*; in other words to do *something* - to take *action* in a way that stimulates *response* — and by analyzing these preliminary results, initiate an unfolding development process, then monitor and finally exploit the evolution of any plausible model that emerges.<sup>10</sup>

## The Wharton Societal Wealth Program

The Wharton Societal Wealth Program (WSWP), launched in 2001, is a field action research program intended to examine how to use business models to develop projects as ‘weapons’ to ‘attack’ societal problems. After a proof-of-concept low cost ‘seed’ stage, a number of Wharton alumnae became interested in the Entrepreneurial Philanthropy approach and provided much-needed funding support to allow the program to continue and to grow. Ten WSWP projects were undertaken with some (in some cases, all!) of the following elements of the high uncertainty described above: imperfect markets, uncertain prices or costs, unreliable infrastructures, imperfect or absent formal governance, untested applications of technology, and unpredictable competitive responses. In some cases even initial objectives and desired outcomes were unclear, exacerbating resource allocation decisions among often conflicting dual (or multiple) objectives. Imperfect markets typically give



Figure 1. A management mindset for tackling near-Knightian environments

entrepreneurs or firms little idea about what market segments to target, and what their reactions might be that could indicate what might or might not work. Imperfect governance – if not destructively corrupt – can confront entrepreneurs with mazes of ambiguity when they try to navigate the corridors of permissions, people and policies, while interpretations of legal frameworks and their corresponding requirements can also be frustratingly unclear and often *ad hoc*. Imperfect infrastructure often translates to unacceptably high operational costs, leaving many developed world business models non-deployable in less developed environments. Finally, under high-uncertainty conditions we may not even be clear as to the available choices in terms of trade-offs between objectives which sometimes conflict.

The insights we developed from the WSWP research program provided the foundation that underpins some preliminary principles we feel could be applied to uncovering business models for *any* new market creation challenges – such as finding markets for radically new technologies (like nanotechnology), or developing sub-markets in rapidly developing economies or industries (such as Chinese and Indian teenage consumers), or securing early profit footholds in rapidly proliferating social, economic or demographic change (for instance, social networking on the internet). We have found that the primary challenge is to have a set of principles to use in a process of deliberate experiment and adaptation designed to develop and unveil an emergent business model with limited downside exposure.<sup>11</sup> So we are finding value from a prenormative multistep process for the creation of a business model designed to attack an intractable problem that, in essence, follows a pattern of systematically reducing uncertainty so as to move from manifold possible worlds to plausible worlds acceptable to decision makers, and from there to probable, computationally tractable worlds where traditional planning measures and risk analytical algorithms can be applied.<sup>12</sup>

In the kind of high-uncertainty conditions that characterize creating new markets (often through the creation of new business models) we use the following six guiding principles.

- **We establish the ballpark**, or scope, of the enterprise, particularly by specifying clear disqualifying conditions that preclude its launch. This also includes defining the necessary boundary conditions for performance on both economic *and* societal outcome dimensions, as well as a specification of the rules of engagement that reflect cultural and competitive boundaries that need to be respected.
- **We attend to the sociopolitics** of the proposed activity, in depth. This entails incorporating a fine-grained view of key stakeholders, their roles, and the attendant resource flows that accompany their engagement in the enterprise, prior to entry. In particular, we ensure that there is a ‘godfather’ in place to shield the enterprise from potentially undesirable government intervention.
- **We identify/create an appropriate unit of business**, then articulate the mechanisms by which the plausible outcomes might be reached, and establish an acceptable preliminary path to scale.
- **We preplan a realistic approach to disengagement** before the enterprise is launched, since the highly uncertain conditions make failure more likely than the envisaged success.
- **We try to anticipate unintended consequences**. Societal interventions can create adverse and unintended second-order outcomes, both negative and positive: the budding societal enterprise must try to anticipate them, and be constantly alert for evidence of their emergence. Since a societal enterprise of any scope will inevitably disturb the interrelated systems into which it is introduced, preplanning must incorporate a systemic consideration of the business’s potential for second order impacts.
- **We follow discovery driven principles** that maximize learning and debate ahead of incremental resource commitments, recognizing that in the beginning discovery, and not profits, should be prioritized. Deliberate, low cost experimentation, effectuation and trial in creating necessary learning and achieving scale in the business is couched in the form of a ‘protoplan’.

The discussion below elaborates on these principles in more detail, drawing on the case experience of the ten Wharton Societal Wealth projects, in all of which the Program experienced some

combinations of the parameters of near-Knightian uncertainty articulated above. The principals are illustrated further in the descriptions of four exemplar projects outlined below, which have been deliberately selected to represent different levels of success: one has been very successful, one only marginally so, for one the jury is out, and one has been discontinued. After summarizing them briefly, we show how they relate to the principles we have evolved for creating models in uncertain markets.

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*All our Societal Wealth projects experienced some combinations of the parameters of near-Knightian uncertainty.*

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#### **Four exemplar projects**

##### ***Successful: the Feeds project – animal feeds in Zambia***

This project aimed to produce high quality, lower cost animal feed in North West Zambia. The region was characterized by huge unemployment levels among former miners after mines shut down when copper prices collapsed, leading to rampant malnutrition which put thousands close to starvation. The concept was to use modern linear programming from the USA to calculate optimal feed mixes and sell this cheaper, higher quality feed to expand local chicken production. The project started as an intrapreneurial venture, launched with six men mixing feed with shovels in a concrete-floored shed. The emergent business model was a system designed for local cash markets via a regionally distributed network of small producers, as opposed to a more conventional large-scale, high volume model designed for large producers and large retail customers.

##### ***Marginally successful: the Cookie project – a factory to create employability as well as employment***

As in many other countries, huge numbers of uneducated, unmarried mothers in South Africa are condemned by lack of education and of opportunity to eke out a precarious living, barely able to feed their children. This project was conceived as a means to make such women employable by training them to operate bakeries in distressed areas, making high quality cookies (using very healthy ingredients) for sale to socially conscious, health oriented customers in South Africa. The pilot bakery was launched to demonstrate proof of concept, with the aim of scaling up to larger production facilities, and of being replicable in other developing countries if the entrepreneur could succeed in building sufficient demand for the brand. Once the local business model was established the entrepreneur redirected toward exports to developed countries in order to scale up the model to train and employ greater number of beneficiaries.

##### ***Jury out: the EMR project – Electronic Medical Record/Expert System in Botswana***

Botswana's population is being hollowed out by AIDS-related deaths in the economically active 18–50 age group. The project was to develop an electronic medical record system that would improve patient care, designed to evolve finally into an expert system that would allow nurses to make diagnostic and prescriptive decisions, only using doctors as consultants when necessary, thereby helping to relieve the unbearable work load currently overwhelming the country's physicians.

##### ***Disengaged: the Peanut project – Building small peanut producing communities***

Peanuts (combined with milk) can fulfill about 90% of human nutritional requirements, but the effort of hand shelling peanuts is high, and the cost of modern large-scale peanut-shelling equipment is prohibitive for small communities. The project concept was to encourage small rural communities to grow peanuts by starting with a pilot program to build a small, low cost, 'good enough' processing plant specially designed to process their peanut crops, while simultaneously improving market distribution efficiencies. The program would produce enough nuts for local community nutrition and provide surplus peanuts for sales to customers outside the region, through a more efficient system that yielded a reasonable return on investment in the plant and a higher income for growers.

## Principles for creating new markets

### We define the ballpark

This principle invokes the Ballparking process described by McGrath and MacMillan, but with an orientation that specifically recognizes the high-uncertainty situation.<sup>13</sup> We begin by specifying three parameters: some *key disqualifying conditions*; a domain of *acceptable performance outcomes*; and a set of *rules of engagement*. We realize that the high uncertainty contexts give us the ‘luxury’ of specifying *a priori* what will and will not be acceptable, and that this insight enables us to save large amounts of desperately needed resources by first being very clear in specifying roads down which we will *not* go as a set of key disqualifying conditions. This allows us to conserve our resources so we can deploy them only on projects which offer the promise of satisfying minimally acceptable outcomes. Finally we conduct a thorough review of the economic, national and cultural context within which the venture will operate so as to specify rules of engagement that prescribe and/or proscribe key actions and behaviors that venture managers should follow.

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### We specify disqualifying conditions

It is critical to specify attributes of the proposed businesses, the presence (or emergence) of any one of which will disqualify the entire project. This principle allows us to weed out many possible project opportunities and hone in on the plausible few that have significant potential. Emergent disqualifying conditions we now apply to projects in our portfolio include:

- Projects that lack the potential to help hundreds, if not thousands of beneficiaries;
- Projects located in geographies where corruption is rampant, deeply embedded and uncircumventable;
- Projects where any necessary equipment is not highly robust, simple to operate and easy to repair;
- Projects whose operations require a large percentage of employees to have advanced technical qualifications;
- Projects where the net revenues from activities are insufficient to cover replacement of assets;
- Projects where a pilot business cannot be run at low cost, and/or where this pilot cannot then be scaled.

All of these conditions will either destroy the proposed venture or render it not worth the effort, so we have learned to make the tough decision to not even try, given the presence of other, more auspicious candidates for our limited resources. Disqualifiers are one of the filters that allow us to separate out a set of potential plausible opportunities from the array of possibles.

### We specify minimally acceptable performance outcomes

When a wealth of performance outcomes might be possible, another ‘luxury’ we have is to clearly specify a domain of plausible outcomes that are acceptable to us. In a world where there are manifold possible outcomes we are more likely to be wrong than right: we have learned that, in an uncertain market creation environment, an obsession with being *right* is dysfunctional. Rather, the appropriate mindset is to launch inexpensively and redirect as the business evolves — if the unfolding model appears not to be heading toward our preset ‘acceptable outcomes’ domain, we either redirect further efforts, or stop them while resource commitments are still minimal.

The plausibility domain for the WSWP has almost always been a *tradeoff* space between a societal outcome and a profitability target, where we create an ‘acceptability space’ by specifying a minimum number of long term beneficiaries on one dimension and a minimum level of profitability on the other. Thus the performance goals for the Feeds Project were set at a minimum regional chicken meat consumption increase equivalent to at least 1,000,000 daily protein servings/annum, together with an organizational return on sales target of at least 12%.

### ***We determine rules of engagement***

We have found it important to specify preliminary decision rules, reflecting our assessment of cultural and competitive boundaries and limits that have to be respected as the embryonic market starts to take shape, and that set boundaries beyond which managers will or will *not* act in pursuit of their venture. The WSWP rules of engagement include: no transgression of home (i.e., USA) or host country laws; no payment of bribes; the stipulation up-front of a meaningful and measurable societal impact metric, beyond simple profit and employment.

It is vital to WSWP’s brand reputation — and that of its projects - that they cannot be seen (or risk being misrepresented) as being exploitative in any way. To guard against such accusations, we insist that no worker or partner involved in a project earn less than the nationally stipulated minimum wage or a calculated living wage. Thus, in a project extension of the Feeds case, the minimum income goal for small-scale producers is twice the minimum wage, and this stipulation - and provisions for future profit sharing — are ‘baked into’ the proposed business model. WSWP remains alert for other mechanisms it can employ to guard against exploitation: one of our investors has directed that financial returns to stockholders be capped and excess profits be reinvested specifically to increase partner and beneficiary participation.

### **We conduct a sociopolitical analysis**

We have learned to conduct a thorough sociopolitical analysis of key stakeholders in the project. Aldrich and Fiol note that the liabilities of newness are especially severe ‘...when an industry is in its formative years’, adding that ‘...among the many problems facing innovating entrepreneurs, their relative lack of legitimacy is especially critical...’, while Tushman and Romanelli find that influence is positively associated with formal location and an individual’s ability to cope with uncertainty.<sup>14</sup> Well-intentioned entrepreneurs in new Societal Wealth Enterprises (SWE’s) in emerging markets are particularly vulnerable to weakness on both legitimacy and influence dimensions. We have also found — in all our cases — that deep, non-transparent ties exist between the management or owners of incumbent firms and members of local or national governments. These often manifest themselves as an opaque ‘cloak’ inhibiting new firms from understanding the actions (or the seemingly inexplicable inactions) of such authorities. In one project, for example, we learned that a competitor with strong ties to a government office had managed to instigate sudden and unexpected difficulties in obtaining work permits for key project employees, without which they were unable to begin (or continue) to work in the country, which risked compromising the effective management of project operations. We therefore find it imperative to conduct an analysis to identify four types of actors whose reaction to the business model can be important to its success.

### ***Beneficiaries***

Recruiting and mobilizing people or parties who will stand to benefit from a project’s success is of particular interest when creating entirely new markets. Potential beneficiaries of a new business are frequently highly suspicious, and there is often considerable unanticipated reluctance to take up the benefits being offered. In the Feeds case, the entrepreneur designed a village-based education strategy to convince potential beneficiaries of the legitimacy and potential of producing chickens, which offered seminars covering poultry types, disease prevention and promoted the financial attractiveness of the proposition.

### ***Potential allies***

Potential allies who may be willing to commit support to the project need to be identified and perhaps mobilized. In the Peanut program, these included a centrally located commercial farmer with a strong reputation for expertise and fairness, and a local Chief who believed that there were efficiency gains to be had for growers in his region and those nearby. The support of an influential member of governance authorities becomes more vital the larger the project envisaged — to this end we seek to identify and recruit a potential ‘Godfather’ to act as a ‘heat shield’ for the activity.

### ***Indifferents***

People or parties who are indifferent to the project’s success, but whose support, effort or resources may be necessary elements for its success. In the Feeds case, these included the national veterinary association, which inspects poultry sites at random and closes those it deems substandard. The association is also closely linked with the national poultry association, which has the power to mobilize the media and government.

### ***Meaningful opponents***

Meaningful opponents who will be adversely affected by project success, and who also have the wherewithal to resist or delay its execution. In the EMR project a large medical software provider ensured that site-sharing or other means of collaboration were likely to fail. Any number of reasons were cited, including the incompatibility of databases, when in fact only minor, relatively basic, data integration was required.

We follow the sociopolitical analysis by updating the rules of engagement (if necessary) and then develop a ‘political plan’ designed to convince beneficiaries, mobilize the support of allies, energize the indifferents, and neutralize or block opponents. We learned to our regret in several WSWP projects that failing to do so leads to significant waste of time, resources and effort. Without going into detail about other stakeholders, suffice it to say that every project has been plagued by one or more instances of inertia, lack of support, bureaucratic foot-dragging or corruption. In one case a willing entrepreneur has attempted to meet a senior government member on six occasions over as many months, only to have every meeting postponed at the last minute. In another case, sudden and significant shortages of necessary stocks materialized during periods of peak demand — on investigation, we found a competitor to our project was an influential stockholder in the vendor’s business.

Our research program has taught us an important lesson. The larger the activity proposed, or the larger one becomes — regardless of its increasing societal benefit — the more important it is to have negotiated a savvy political agreement before beginning. We have learned that it is generally necessary to identify and secure the support of a political ‘Godfather’ before pursuing any project that might scale to a size where it could disrupt or throw unwelcome light on prevailing socioeconomic or sociopolitical realities. Failing to conduct a careful political analysis, and to craft an effective political strategy to counter the anticipated moves of ‘meaningful opponents’, is tantamount to condemning the project to death by suffocation, if not by execution.

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### **We design a low cost pilot and hypothesize a path to scalability**

Given the unpleasant fact that probability of success is low, we have learned to recognize that pursuing a high cost, asset intensive start up under uncertain conditions will almost guarantee expensive failure. On the other hand a project that is small in scope can hardly accomplish significant societal impact. So our current approach is to design a low cost pilot intended to unfold the actual business model, abandoning it if it becomes apparent that redirection is not possible, but at the same



time hypothesizing a general path to scale up the business, which can also be abandoned if it proves unrealistic. At this pilot stage we attend to three components.

### ***We specify the unit of business***

We have found it useful to specify the proposed unit of business first, and to hypothesize business and revenue models subsequently. Under high-uncertainty conditions this can be frustratingly elusive, as few precedents may exist on which to base an assumption as regards hypothesized transactions — but without such an assumption it is nigh-on impossible to move forward to articulate business and revenue models.

In the Feeds case the initial unit of business was a 25kg bag of animal feed, although the product line has significantly expanded since then, and now includes different size bags of numerous feed types. Many customers without ready access to affordable transportation purchase feed for six to eight weeks (a production cycle) at a time. At the Cookie company, the unit of business is a 130 gram box of all-natural cookies. The entrepreneur has calculated the number of box sales required to create each new job, building in the cost of the number of training courses and education hours to train that additional employee. In the EMR case, the first hypothesized unit of business was a report containing appropriate clinical data for pharmaceutical companies who wished to conduct research in the environment. As the activity unfolded, the primary business unit morphed into an annual software license contract for users. (For further exposition on the unit of business construct see the companion article by Rita McGrath in this issue.<sup>15</sup>)

### ***We specify the mechanisms needed to achieve desired societal outcomes***

In line with the suggestions of Amit and Zott and of McGrath in their articles in this special issue,<sup>16</sup> our next principle is to hypothesize a specific mechanism for societal improvement. Our repeated use of the term ‘hypothesized’ clearly reveals our recognition that, in uncertain contexts, the final business unit, revenue and profit drivers and societal wealth enhancement mechanisms are likely to be different, maybe *very* different, from those in the initial hypotheses. The deliberate use of this term forces us to design ways to test these hypotheses, and then re-hypothesize as the actual drivers unfold.

In every one of the exemplar cases our initial assumptions about the business model drivers shifted as the project developed. In the case of the EMR project we discovered that the mere graphical representation of patient outcomes data as related to drug regimen adherence was a more powerful driver of user adoption than the originally hypothesized variables of price and system uptime. This learning emerged only after system implementation and as a result of *patient* responses. In the peanut processing case, a critical driver of success was the management of product ‘shrinkage’ throughout the logistics chain. Initially, there was considerable uncertainty as to the likely outcome of this variable, and our modeling revealed that a loss ratio of five or more percent would make it unlikely our hypothesized business model could generate the minimum profit level required. The second most influential cost driver was the transportation of finished products to market. Given the volatility of costs associated with product shrinkage ratios, and with scarcity of trucks, poor road quality and high fuel prices, even the highest quality product was unlikely to capture a high enough price for the growers to compete in the envisaged export market. Our early stage hypothesized mechanisms for creating and distributing the product were irremediably challenged by the practical realities. We were unable to design a system to cope with them, or to redirect the project in a manner that would generate sufficient profits to attract the entrepreneur and the essential management skills, and so, reluctantly, terminated the project.

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*Our hypothesized creation and distribution mechanisms were irremediably challenged by practical realities ... unable to redirect the project towards sufficient profitability, [we] reluctantly terminated it.*

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### ***We hypothesize a path to scale***

Once the unit of business and the business and revenue models have been conceived, it is necessary to consider paths to scale up the venture. The existence of an hypothesized path provides a basis from which to re-plan, modify and redirect the requisite resources and activities as required as the venture unfolds. In the case of the Feeds company, the path to scale has been via higher output machinery, a larger distribution center and an expanding network: replication of the manufacturing plant is also currently being considered in a neighboring state. In the case of the Cookie manufacturing project, the pilot site was a small, underutilized community building in the heart of a South African township, where the facility was leased rent-free in exchange for jobs and training for unemployed local women. This was later scaled to a larger, more expensive facility. The business model has more recently evolved to outsourcing production to a high capacity, high quality producer, which has well developed training programs for unemployed men and women from the adjacent township, The envisaged business model and path to scale for the Peanut project resembled that of the Feed project, but had to be abandoned once redirection of the project proved impossible.

One problem we have found associated with scaling is that management talent and expertise are among the scarcest resources in emerging economies. It is difficult to attract the relatively few experienced employees and partners — or even high potential candidates for education and training — to an uncertain venture that cannot ensure them of achieving something worthwhile, compared to the prospects of alternatives that, while offering lower known potential, also promise lower risk.

### **We preplan disengagement**

Baden-Fuller notes that ‘... almost all the literature on inefficiencies in exit behavior highlights the existence of conflicts between various parties’.<sup>17</sup> With uncertain projects failure is more likely than success, which means that abandonment of the program is more likely than not. In the case of societal wealth initiatives it is often not just financial capital involved that is at risk — the livelihood and/or well-being of large numbers of people will also suffer if disengagement is poorly executed. We have learned that it is irresponsible not to plan how we will disengage with deftness and leave a light footprint behind us — *before we even start!* Our experience with disengagement has also been that transaction costs are involved in exiting from the respective relationships and obligations in ways that preserve as much of our reputation and other social capital as possible.<sup>18</sup> Such disengagement costs are often overlooked during budgeting — but unless the necessary resources are available, even with the best intentions, such terminations can cause embarrassment at best, but, at worst, societal catastrophe.

Another distinguishing feature of SWEs (as against more traditional for-profit firms) is in planning disengagement in the event of success, rather than exiting in a form such as a liquidity event. Once a challenge has been attended to, how and when can the entrepreneur exit in an acceptable manner? If the objective of the enterprise is to completely solve a problem — for example, eradicate a disease — full accomplishment means the (successful) business model is no longer required. Owners of the business, however, can be tempted to perpetuate it beyond its period of usefulness — one way to avoid this is to plan how to exit, ensuring all parties understand the why and how, from the get-go. While we have yet to reach such a point in the Feeds program program, we have already thought through disengagement options.

Alternatively, at some point, a successful firm whose original mission becomes extinct may become the seed for a new/more developed industry through a process of speciation. For example, the Feeds project delivers to a small scale distributed production poultry system that will thrive initially due to market and infrastructure inefficiencies. Once they are eliminated, through the co-evolution of supporting market, industry and infrastructure mechanisms, the original business model is likely to become unsustainable. But if we are successful the objective is to use the profits from the initial business to seed similar businesses in other countries.

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*ill thought-out 'solutions' can lead to serious negative consequences. [Well] designed and executed societal wealth business models have self-sufficiency in their DNA, not the dependency of Aid initiatives.*

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***We anticipate second order effects***

Since the new market is created under conditions of uncertainty, we have found we need to anticipate carefully the possible second order effects of success of the entrepreneurial effort — *both negative and positive*, and be alert to their emergence. This is consistent with Coase's warnings '*...that in devising and choosing between social arrangements we should have regard for the total effect*'.<sup>19</sup> An ill thought through 'solution' to a problem can lead to serious negative follow-on consequences, as when encouraging shrimp aquaculture led on to total decimation of mangrove forests and destruction of marine tidal ecologies. If designed and executed well, societal wealth business models have a self-sufficiency imperative imprinted in their DNA, as opposed to the dependencies often created by Aid initiatives.<sup>20</sup> (However, this does not make them immune from such potential negative outcomes as environmental damage.)

Our animal feeds case looks as if it is generating unanticipated second order effects in both directions. In *negative* terms a rather bizarre problem appears to be arising: as the plant expands to fulfill the demand for more feed for ever more chickens, we are beginning to worry about excess production of chicken feathers. These cannot yet be recycled — there is only so much demand for cushions and comforters in a poor, tropical society! — so we are investigating whether they can be used as a fuel for burning in furnaces.

But there have also been (manifold) 'bonuses', in the form of emerging, unanticipated *positive* second order effects. Not only has the initiative benefited its stakeholders, it has also meant competitors in adjoining regions have had to meet its new higher quality/lower price product standards if they want to stay in business, and this general improvement has seen hundreds of new entries into the poultry grower market, all competing at the improved standards. The greater efficiency of the feed market has led also to greater investment: at the time of writing new hatcheries and production and processing facilities are being initiated and developed across the region. A number of churches are attempting to develop community-based poultry production programs in remote rural areas, and a new market for product sales has opened up in a neighboring country, where negotiations to develop a manufacturing plant are also underway. All this growth in activity is yielding resultant benefits to the local and regional society far greater than those directly achieved by the Feeds project alone.

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*This activity growth is yielding benefits to local and regional societies far greater than those directly achieved by the project alone.*

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***We use a discovery driven processes to learn by effectuation***<sup>21</sup>

Once the preceding steps are complete and we have created a propositional business model, we develop a 'protoplan' — a very early stage financial and operations specification with a limited number (10 to 15) of assumptions — and then expeditiously and continuously revisit and update the domain of plausible outcomes, re-hypothesize the business model and societal wealth mechanisms, and reassess the rules of engagement for context relevance. This process converts uncertainty to risk by reducing the initial wide ranges of equiprobable variables towards probability distributions, from which managers or policy makers can then develop a richer, 'discovery-driven' plan, and

**Table 1. Application of elements to four exemplar cases**

**Successful: Feeds project – Zambian animal feeds**

<i>Ballparking</i>	<p>Minimum number of daily human protein equivalents vs. profits of the proposed venture in order that it be directed toward a worthwhile outcome from the start.</p> <p><i>Rules of Engagement:</i> The analysis of the situation suggested two major constraints:</p> <p><i>First</i> – a firm proscription against succumbing to the suicidal temptation to try to ‘poach’ big customers from existing competitors in adjoining regions. This would have provoked massive retaliation. For strategic reasons low visibility market entry was critical, so small markets had to be created in rural communities.</p> <p><i>Second</i> – the requirement that, however tempting, no sales be made on credit, as the culture and legal processes are structurally inimical to collecting unpaid bills.</p>
<i>Sociopolitical analysis</i>	<p>Potential farmers had little confidence in their ability to produce poultry profitably. Only after the entrepreneur organized a short, highly informative seminar series, delivered at multiple trading stores in the region, did people begin buying and trying the feed, and following the proposed poultry growth model.</p> <p>One incumbent was a formerly state-owned enterprise that had strong ties with government. Another was a very large, aggressive competitor from a neighboring state. Consequently, a strategic decision was made to start the firm as an <i>intrapreneurial</i> venture within a large firm in a related business.</p>
<i>Pilot/Scalability</i>	<p>The initial assumption was that existing small scale producers would buy feed by the sack. The ultimate generators of profits were purchases of six to eight weeks’ supply by start-up producers, and highly seasonal adjustments to feed formulae based on local ingredient availability and pricing. The project initially employed six men mixing feed with shovels. As demand was created project expanded securing first second hand, then new equipment now capable of producing 2000 tons per month of feed.</p> <p>Negotiations underway to replicate a similar model in adjoining countries</p>
<i>Disengagement</i>	<p>In the event of an exit there had to be enough inventory to see existing clients through their production cycle, accurate financial statements presented to host firm and all creditors paid.</p>
<i>Second order effects</i>	<p><i>Positive:</i> A number of other organizations such as churches and prisons have launched ‘outgrower’ schemes where they help set up similar poultry growing activities and support the purchase of feeds for growers. Feed prices of all producers are relatively lower in 2009 than in 2003, at improved quality levels, thereby benefiting all poultry growers and reducing the cost of protein to consumers. A neighboring state is negotiating to replicate the poultry system.</p> <p><i>Negative:</i> potential environmental damage through poultry waste.</p>
<i>Learning by effectuation</i>	<p>Protoplan and DDP built for small growers, with cash sales to local markets. With success, Feeds has moved to supply bigger clients, offer broader product lines, and is now gaining a political foothold to affect national policy. At the time of writing there is some redirection of focus towards project replication in a neighboring country.</p>

**Marginally successful: Cookie project – a factory focused on creating employability**

<i>Ballparking</i>	<p>Minimum number of so-called ‘unemployables’ trained and employed vs. profits.</p> <p><i>Rules of engagement:</i> The primary purpose was to draw unemployed labor from impoverished townships and train them so as to render them promotable and employable in other firms and sectors. The availability of skilled workers from other companies represented a quicker and cheaper path to growth but was viewed as contrary to the project’s societal mandate.</p>
<i>Sociopolitical analysis</i>	<p>Potential employees had been so beaten down by their adverse circumstances that they had to be persuaded they could in fact become employable and would not be exploited. Uninvolved but influential members of the local community initially resisted the project for fear of losing their influence in the community affairs. The entrepreneur (and potential employees) had to educate them about the proposed activity’s broader economic spillovers and the resulting expansion of the influencers’ economic base.</p>

**Table 1** (continued)

<i>Pilot/Scalability</i>	The initial 'plant' was an abandoned training base in a township center with three domestic ovens. The company has now relocated to a larger plant training and employing 300 women. If business model can be bedded down to deliver investment grade profitability the next step will be to replicate the efforts in other parts of Africa, India and Latin America.
<i>Disengagement</i>	Ensure that if the project was shut down the employability of workers had been considerably enhanced. Entrepreneur helped secure employment of workers of the first venture as part of the exit and handover to new owners.
<i>Second order effects</i>	<i>Positive:</i> Successful on-site promotions to management. Younger early employees moved on and attended college and have gained employment in other sectors.
<i>Learning by effectuation</i>	The original business model was sales of cookies to local distributors. In order to scale up into higher wealth and disposable income countries, original model morphed (redirected) into shipment of container loads as exports to health and socially conscious developed country consumers, either via health and socially conscious food chains or via the internet.

**Jury out: EMR project – Botswana electronic medical record and expert system**

<i>Ballparking</i>	Minimum number of HIV patients treated per day by nurses vs. net revenue. <i>Rules of Engagement:</i> <i>First</i> – quality of patient care takes priority. <i>Second</i> – no compromise of patient confidentiality through data use. <i>Third</i> – full compliance with Botswana and US healthcare laws.
<i>Sociopolitical analysis</i>	Doctors were initially concerned that they would forgo income by 'wasting time' entering data into the EMR and resisted implementing and utilizing the program. Patients were resistant to interacting only with the nurses as the first line of treatment without a doctor present, and had to be convinced and incentivized to accept a new approach.
<i>Pilot/Scalability</i>	Instead of trying to launch a major nationwide program with full EMR and diagnostic capabilities we focused on a single (the largest) private clinic and started with the development of electronic databases for 16,000 patients. We are currently looking to expand to building an expert system if a reliable source of revenue can be developed.
<i>Disengagement</i>	The key patient functionality created is the ability for a patient to see charts of their real time physiological responses to treatment/or non-adherence to treatment. Should we disengage our intention is to assist in ensuring such functionality remains and we leave the project without harm to the clinical practice.
<i>Second order effects</i>	<i>Potential positive:</i> extend lifespan of HIV patients. <i>Potential negative:</i> HIV viewed as manageable and therefore not feared as much as a 'terminal' disease with a subsequent reduction in precautionary practices.
<i>Learning by effectuation</i>	The revenue model was initially to sell data to pharmaceutical companies for research. The current model looks to have software usage to be included in research programs by HIV/AIDS researchers. Redirection to use of graphical interface to improve patient care and use of cell-phone text reminders to increase adherence.

**Disengaged: Peanuts project – building small peanut producing communities**

<i>Ballparking</i>	Minimum number of tons of peanuts processed vs. profits in order that the effort is worthwhile for us and local participants. <i>Rules of Engagement:</i> <i>First</i> – secure an appropriate central, secure, processing center in which to invest equipment. <i>Second</i> – secure permissions/authorizations from local chiefs/village heads. <i>Third</i> – recruit a full-time entrepreneur with local agricultural experience and skills required to build & processing plant.
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**Table 1** (continued)

<i>Sociopolitical analysis</i>	For people accustomed to being in control of existing crops, and using produce as needed, the idea of harvesting and then giving up their crops to a third party for processing was hugely suspect. The proposed model would threaten the profitability of well established brokers and agents.
<i>Pilot/Scalability</i>	It was challenging to create a low cost pilot for this operation unless investors could be found from the start. Detailed due diligence analyses of proposed investments yielded two major obstacles to the project's profitability: <i>First</i> — huge sensitivity of profits to even modest pilfering within the logistics chain made the investment deeply vulnerable <i>Second</i> — poor infrastructure and associated high costs of transportation increased difficulties
<i>Disengagement</i>	Exit from environment accomplished with goodwill intact — no unnecessary waste of time/social capital/funds of potential partners. Currently exploring another similar project.
<i>Second order effects</i>	<i>Potential positive:</i> Higher income per employee, therefore funds for children education. Improved healthcare and nutrition for children. <i>Potential negative:</i> male perception of cultural disruption with women earning higher income working at peanut shelling plant.
<i>Learning by effectuation</i>	The original concept was to charge for processing peanut crops and purchase surplus production for use in bulk sales to large customers. Given proposed customer location, poor transportation infrastructure and high fuel costs, business model profitability was too close to the lower bounds of acceptability.

subsequently deploy the many procedures and algorithms available for making decisions under conditions of risk.

The Cookie project demonstrates our practice of redirection as a result of discovery driven planning. Beginning in an underutilized community building in an African township, product is now developed using sophisticated food scientists and best-in-class ingredients. Cookies are exported to the USA, and the project employs men as well as women, on both sides of the Atlantic. However, building a new food brand is tough in the current economic climate — success is by no means guaranteed. If the entrepreneur fails to build an attractive enough operation in the 'bricks and mortar' retail market, the strategy may have to be redirected to an e-commerce model to reduce direct marketing costs and extend the lifespan of current investment resources. If successful in achieving breakeven and subsequently adequate scale, the entrepreneur envisages extending the product line to include products from other nations, as well as replicating the production and training model in other resource-poor settings of the world.

Likewise, our EMR project started from a desire to develop computational algorithms to assist nurses with diagnosis and drug prescription. The first redirection occurred when patients responded overwhelmingly in favor of graphical representation of their key health markers (such as viral load and CD4 counts) relative to their adherence to medication regimens. This led to a study to determine whether text message reminders to patients' cell-phones to refill their prescriptions and attend regular consultations with their physicians would increase their adherence to drug regimens and clinic visiting schedules. The data are currently under analysis: should text message reminders prove effective in increasing adherence, our next steps will be to determine the impact of increased adherence on key patient health measures or outcomes. Should such a study demonstrate validity and positive impact on patient health, the text message reminder system may become an additional benefit of the EMR business model.

Table 1 shows how the six elements worked out in the four projects we have chosen to illustrate. (Note that these are excerpts from more detailed tables and case data chosen for the purposes of this 'thought piece'.)

## Discussion

This thought piece has laid out our set of currently used principles, derived from our manifold experiences in the Wharton Societal Wealth Program, when designing and executing business models for enterprise creation under conditions of high uncertainty. Such environments score high on the ‘Knightian scale’ — i.e., they possess one or more of the following: highly imperfect markets, virtual absence of formal governance, massive deficiency or unreliability of infrastructure, profound unfamiliarity of technology, extreme unpredictability of competitive response, and/or deep ambiguity of objectives and desired outcomes. Discussions with practitioners in the field suggest that our principles could usefully apply in many other high-uncertainty situations.

We find that this process allows us, and the managers of WSWP project ventures, to probe for opportunities by ‘unfolding’ entirely new business models and, in so doing, creating new markets. We stress that the principles we derived from this research are both preliminary and far from comprehensive — they are offered as a starting point for discussion and debate, rather than a prescription. Our hope is that they will prove useful for other situations where managers are trying to forge business models under high uncertainty, such as the commercialization of very new technologies or entrance into radically new markets.<sup>22</sup>

Our research is novel in that it has been conducted primarily in emergent markets, although we find the process to be effective in both developed and emergent economies. It makes two contributions: first we are building a research base in societal entrepreneurship, an area of growing academic interest; second we propose a general framework for practitioners wrestling with the challenges of new market creation, particularly in lesser developed environments. There are of course limitations to such field research: a severe drawback is that it takes considerable time, effort and expense to build a relatively small sample of firms to study. Even with the manifold efforts of others attempting similar research, it will likely be a number of years before sufficient performance data are available to yield a robust, quantitatively attractive population of both successful and unsuccessful SWE’s from which to offer generalized insights and guidelines for business models focused on new market creation.

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*How to trade off manifold objectives may be a future business model problem for even the most capitalistic firms facing high uncertainty, [given] recent profit seeking excesses and global financial turmoil.*

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A recurring complication in handling the high-uncertainty conditions in our projects was deciding how to allocate extremely limited resources in simultaneous pursuit of the multiple — often competing — objectives of societal wealth creation and profit generation. This particular source of uncertainty — how to trade off manifold objectives — is likely to emerge as a business model problem in the near future for even the most capitalistic firms, as global organizations experience the retribitional wake against the profit seeking excesses that contributed to the recent global financial turmoil. Firms may find that the single-minded pursuit of profits will be increasingly constrained by societal controls and sanctions, and that they will more and more often be expected to deliver improved performance, but under socially responsible constraints. Together with the further development of our emerging set of principles, this challenge may present interested researchers with attractive directions for follow-on research.

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