

IDLE CAPACITY: A COST-SAVING APPROACH FOR EARLY-STAGE STARTUPS

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ABSTRACT

This paper aims to explain the innovative approach of idle capacity for young entrepreneurs to solve the financial and human capital problems through benefiting the idle capacity of other enterprises in their networks. Seed funds merely exist in developing countries. An unexploited opportunity is idle capacity which falls into barter options into In-Kind Contributions. Idle capacity for startups is a specific form of barter agreement.

I benefited from idle capacity usage model of Altuntas, one of the dragons of Dragons' Den, an entrepreneurship based TV show. A very important conclusion for entrepreneurial lectures is that a more practical approach is to develop business ideas that fit around your circle's resources rather than any random business idea that comes into mind.

The Importance of Entrepreneurship and Seed Funding

Entrepreneurship is associated with the creation of wealth, technological innovation, positive externalities, allocation efficiencies, improving quality, productivity improvement, competitiveness, deregulation and job generation (Acs, et., al. 2004; Acs and Armington, 2006; Wennekers and Thurik, 1999). In cross-national studies, Djankov, et al. (2002) suggest that nations with greater barriers to entry of new firms also have poorer-functioning and more corrupt economies.

If the ecosystem does not tolerate mistakes and entrepreneurs are not encouraged to take risks, innovative start-up companies will not emerge. The seed fund may be a key factor to solve the puzzle through sharing the risk. A financial system is expected to evaluate prospective entrepreneurs and choose the most promising projects (King and Levine, 1993). However, traditional banking system works for the corporate and routine businesses. Many initiatives have been launched to overcome financial bottleneck in entrepreneurship (table 1). Seed funds merely exist in developing countries. An unexploited opportunity is idle capacity.

This paper aims to explain the innovative approach of idle capacity for young entrepreneurs to solve the financial and human capital problems through benefiting the idle capacity of other enterprises in their networks.

Idle Capacity: Concept and In-Kind Contribution

Idle capacity falls into barter options into In-kind Contributions (in table 1). Idle capacity for startups is a specific form of barter agreement. In-kind contributions are not equivalent to cash but they have liquid asset value (Strauss, 2011).

Table 1. Startup Funds

Traditional Route	Own Resources	Partnership	Creative Solutions	In-Kind Contributions
Personal Asset Bank Loans SBA Loans Equity Line of Credit Credit Cards Friend- Family Angel Investors Venture Capital Initial Public Offering	Factoring Retirement Accounts	Government Partnerships Mergers and Strategic Alliances	Peer-to-peer Lending Crowd funding Microfinance Royalty- Revenue Sharing Seller Franchising Business Plan Competitions	Incubators Barter

Source: Strauss (2011)

Barter is the exchange of your goods or services for another business’s goods or services without trading dollars. Not all barterers are using idle capacity. I might be working in construction business. I don’t have money to sub-contractors. I may offer some flats in exchange to build apartments. In this barter agreement, there is no idle capacity.

Idle capacity is referred to a barter of unused time, unused inventory or unused spaces. The total capacity composes three parts. The first is productive capacity, which is the capacity needed to process scheduled production. The second part is protective capacity, which is held in reserve to ensure to meet the bottleneck operation. Any remaining capacity is called idle capacity.

The economic literature focuses on the reasons of idle capacity. Proctor (1976) argues that idle capacity exists since the production and investment decision of firms are very different. In some cases, firms have idle capacity to deter entry (Bulow et. al., 1985). Bad information on product costs leads to bad investment strategy (Cooper and Kaplan, 1988). Production facilities remain unused because of a lack of demand.

The solutions of the idle capacity are suggested in inventory and production lot size control (Banerjee and Eiamkanchanalai, 1999), managerial efficiency (Pacheco and Fernandes, 2003), and economies of scope (Panzar and Willig, 1981). In the last concept, within firms managers decided to innovate or to sell a new product by using the existing resources such as research and development or marketing departments. For instance, motorcycle research labs and production facilities is used for car manufacturing.

However, entrepreneurs look at the existence of idle capacity as an opportunity (Altuntas, 2012). In the economic literature, I did not counter experiences of entrepreneurs related to this funding method. In this paper, we will explore some real life experiences. Usually, entrepreneurial economics focuses on venture capital type of funding. However, in developing countries, saving is low and funds are dedicated for the established business and investment goods. The idle capacity might be a working option for entrepreneurs.

In table 2, we compare the R&D Expenditure in developing countries since the seed funds merely exist and there is no data available. When we look the R&D expenditure in Turkey

and Iran, spend only 0.7% of their GDP on R&D. The sum of expenditure of R&D of Middle Eastern and North African countries is much less than the U.S.A. Angel Investment. In the U.S. there are 2000 venture capital companies and 250.000 Angel Investors actively invest in startups. The main success (superiority) of the U.S. is the existence of seed funds to allow startups experiment trial-errors in market.

The estimated seed fund (total venture capital, angel investment and government support) amount in Turkey is less than 100 million U.S.\$. Certainly, we need to raise this number but on the other hand; we have to find some innovative ways to substitute cash constraints.

Table 2. The R&D Expenditure in GDP in some Developing Countries and USA in 2007

	2007	In U.S.\$
Turkey	%0.7	4.2B
Iran	%0.7	2B
Egypt	%0.2	260
Tunisia	%1	35M
Algeria	%0.1	160M
Suudi Arabia	%0.1	380M
U.S.A. R&D	%3.2	470B
U.S.A. Venture Capital	%0.15	20 B
U.S.A. Angel Investor	%0.12	18B

Source: World Bank Development Indicator

Idle Capacity: Case Study from Altuntas

As a business economics professor, I am interested in the career paths of successful businessmen and professionals. I especially focus on those who write books related to their experiences. I assign these books at the beginning of semesters. I explain the key points of the book and assign various pieces of homework related to them. At the end of month, I invite these authors to the university campus to deliver lectures. What I hope to accomplish is to fully integrate the authors' speech with the written documents in order to allow well prepared students to grasp the business approach. Students who are ready and prepared will truly understand well-known businessmen and professionals. Questions and comments from students are provocative, challenging and thoughtful.

My typical question in dealing with a businessmen or professional is: What is the secret to their success? One of the books used in the past few years is Baybars Altuntas, one of the dragons of Dragons' Den, an entrepreneurship based TV show, 'My way to Dragons' Den- 66 Secrets For Entrepreneurs.' The book is written in Turkish language but addresses important topics related to an innovative solution for seed funds. He also alters some fundamental approaches in business plan.

Putting innovative ideas into motion requires financial and human capitals. Since Altuntas did not have them in the beginning, he used others' resources without asking cash supports. However, he just focused the idle capacities.

Altuntas recognized the shortcomings in the education sector. There were only classic courses, such as English, computer and cutting-sewing. Concepts such as vocational training

or career courses did not exist. People have to pass university entrance exams to acquire a professional degree. He searches for the appropriate professional degree.

At that time, there were 3500 travel agencies across Turkey, but none offered the training to staff for these agencies. He decided to launch the first career course program for travel agencies. After he picked the program, he needed to find the students.

To implement the certificate program tour operator training, he asked an owner of a real estate agency, for free use of unused offices (table 3) for marketing. He used the staff, office spaces and office equipments to promote the certificate programs. So he didn't want money, just idle capacity. The idle capacity is the stuff that firms do not use: office, car, tools and equipment. It will be received positive response for the demand of idle capacity since there is no loss for firms. When idle capacity exists, a firm can take on an incremental order without increasing the fixed costs. Bartering these idle capacities allows the source owners to get valuable assets in return. Altuntas start paying rents and shares the bills of the existence office.

This spare capacity was something more valuable than money. This is the back bone of the formula of Altuntas.

All candidates participating in the tour operator certificated programs had insufficient English. He asked the dean of education (where he was a student) of Bosphorus University to open a weekend certificate program in idle classrooms (in table 3). Therefore, lifelong learning centers in Turkey started to work with this initiative and inspiration. Notice that he did not want anything from Bosphorus University, he only requested idle capacity on weekends. This project could serve as an example to other universities in the development of national economy, and therefore could arise as a locomotive project that he has explained to persuade the university administration. The right business idea, network and idle capacity, coupled with the ability of persuasion, assure that the project endures for years.

He benefited the same formula while he obtains the IATA Training Representative of Turkey. The general manager of his company had earlier links in IATA in Geneva. Having seen the gap in Ticketing Expertise in Turkey, he used the connections of the general manager's network (table 3). Based on the formula and connections through his general manager, his idle capacity in education center and the ability of convincing of Altuntas lead to take one of the world's first IATA approval certificate programs.

Table 3. Altuntas' Formula: Innovative Business Idea + Net Work + Idle Capacity

Innovative Business Idea	NetWork	Idle Capacity
Travel Agencies Tour Operator Training	Azmi Saribay- A member of Franchising Association	The idle office and secretaries of Azmi Saribay
English Certificate Program	Cem Alptekin- Dean of Bosphorus University	Idle classes of Bosphorus University
IATA Turkey Representation	Halim Gures- Colleague	Idle capacity of Deulcom classes

Source: Dragon's Dens 66 Secrets.

Net Work Creation of Altuntas: 5 Whys

In Entrepreneurship literature networking draws a great deal of attention. This issue is already covered from different aspects (Arun, 2010; Cooper, 2002; Aldrich and Zimmer 1986). Altuntas' mother was an elementary school teacher and his father was retired from the military. His father has six brothers and all of them were public officers. Altuntas has seven brothers and they are also public officers! In the circle of his family, they did not have any connections to business world. So he made his own networks. In the case of Altuntas, I will consider one networking case between him and Azmi Saribay, real estate agency owner. To follow the network building process of Altuntas, I will ask 5 whys (In the business literature, inspired by Toyota, 5 whys are to explore the cause-and-effect relationships of a problem or situation. The goal is to determine the root cause (Ohno, 1988)).

Why does Azmi Saribay accept the barter deal with university student 21-years-old boy (first why)? Saribay witnesses how Altuntas established the franchising system from scratch without spending a dime with a great success.

Why does Saribay get in touch with Turkish Franchising Association (second why)? Saribay is the leader franchising real estate company of Turkey, Turyap (a leader Turkish based real estate franchising company competing to U.S. base real estate franchising i.e. Re-max and Colliers)

Why does the idea of establishing of the Franchising Association become so successful (third why)? Altuntas succeeded to draw the attention to the press and the businessmen since the franchising concept is very new concept in Turkey in 1990s. He gets connected to German Franchising Association. He invites the head of German Franchising Association. He builds a similar structure of German Franchising Association.

Why does the head of German Franchising Association visit Turkey (fourth why)? Altuntas invites him to introduce Turkish business community the franchising system.

Why does he connect to the Franchising Association at age 21 (fifth why)? He reads an article about the franchising in a review and he sees the fax and phone number of German Franchising Association. He realizes that in the future there will be big demand in Turkey.

As we witness that following an important idea brings an important chain of connection and builds networks for Altuntas.

Teaching: Business Plan Preparation

When I assign my students to prepare a business plan, I ask them: What is opportunity in business? What is the authenticity of his product and service? What are the marketing channels and what is financial table? This type of well-known questions are details explained in many entrepreneurship books (Allen, 2003; Frederick et.al., 2010; Bruce et.al., 2009) . However, now, based on the Altuntas Business Formula, I ask them about idle capacity they may use. To whom they know and what type of idle capacity they have. Shape your business plan according to these available resources. Look primarily at the people around you and consider their related businesses, networks and institutions. A more practical approach is to develop business ideas that fit around your circle rather than any random business idea that comes into mind.

Discussion on Idle Capacity Model

This idle capacity usage model has two aspects: i) use the other resources without asking cash or credit and ii) develop business model based on the idle capacity in your network. Certainly, the second aspect brings a constraint since as an entrepreneur; I cannot use my full talent in a desired sector. On the other hand, it is hard to get financial support without a successful track record. Additionally, the seed funds are very limited in developing countries.

The first aspect related to use idle capacity is to save our cash. Bartering for the products and services you need supports saving your capital for other things. Another important implication of demanding cash versus non-cash value is that cash request is very delicate issue. People become very sensitive however non-cash items are easier to ask (Ariely, 2010). Probability of accepting a non-cash asset is much higher than a cash asset. If this non-cash asset is idle, it is much easier to get approval of owner. When money is involved, people hesitate to answer positively but they are more positive to accept to use the idle capacity since the opportunity cost does not exist.

Barter system is a vast concept. Unused hotel rooms, rental cars, food or ad space in a magazine, in a newspaper, online, or in radio or TV time (Strauss, 2011). Stores have extra inventory, accountants have unused time, restaurants have empty tables (Strauss, 2011).

Eventually, Altuntas uses an open source opportunity to reach his goal, and shares the profit if the business works well. Bartering allows using idle capacity to make good use of products or time that may be otherwise wasted.

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