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KICKSTARTING NEW SPACE: A brief introduction to crowd funding as a means to jump start space-related entrepreneurial enterprises

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ABSTRACT: In 2012, Liftport Group initiated a Kickstarter campaign to raise $8000 to build a test "climber" device to test capabilities of a proposed lunar elevator. By the end of the campaign, they had raised $110,363. While such success may appear an exception to the rule of crowd funding, it is by no means a fluke, as other space or space-related startups are testing the waters to varying degrees of success. But it has become clear that the relatively new phenomenon of crowd sourcing is rapidly cementing itself as a new feature in the economic landscape, and not merely a passing fad.

In this analysis, the Author will look deeper into the area of crowd funding, what has succeeded and what has not in the realms of space entrepreneurship and advocacy, and take a look ahead to what may be possible in the future.

AN UNEXPECTED OUTCOME

Since 2002, Michael Laine has been promoting an idea known as the Space Elevator, a 60,000-mile long ribbon made of carbon nanotubes, extending far enough into space that centripetal acceleration keeps the ribbon taut. Spacecraft then attach to a robotic climber that races up the ribbon, obviating the need for rockets, thus making “cheap access to space” a true reality. He raised money, hired a lot of eager young engineers and designers, and they began to develop concepts and real hardware. There were good times and bad. He lost a building he’d leveraged, was bankrupted, and he spent a couple of years “in the wilderness”, but the dream of space access for everyone never faltered. He stabilized, changed his elevator focus from Earth to the moon, as a proof of concept. He wanted to build a new climber to test. He figured it would cost $8000. So, with an “it’s worth a shot” attitude, he tried an up and coming crowd-funding platform called Kickstarter. For a certain minimum contribution, donors could get a t-shirt. He only needed $8000. How many shirts would he really need to make?

Then came something astounding: The Kickstarter campaign raised $110,363 from 3,468 backers.

Of course, Laine still had to share a piece with Kickstarter, plus make good on all the t-shirts, but he still ended up with sufficient funds to not only build the climber, but get Liftport rolling again.

SO, NOW WHAT?

The question now becomes: *Was this a fluke, or is “crowd-funding” an idea whose time has come, and heralds the final opening of the Space Business Frontier?* That answer, of course, depends on whom you ask.

THE PHENOMENON

The “crowdfunding” business model, previously thought of as *collective fundraising* or praenumeration, goes at least as far back as the 17th century, where publishers would seek to finance publications planned but not yet printed.

The earliest recorded use of the word "crowdfunding" was made by Michael Sullivan in “fundavlog” in August 2006.

The first online platform for crowdfunding in the United States was ArtistShare, launched in 2003. After that, many more crowdfunding sites appeared, including such popular sites today as IndieGoGo (2008), Kickstarter (2009), and Rocket Hub (2009).

As a global funding phenomenon, crowd-funding’s influence is *doubling every year*. Here are the recent totals:

2011: $1.5B

2012: $2.66B

2013: $5.1B

2014: Expected to double again, and leverage an additional $65B in total economic activity worldwide.

The World Bank estimates that by 2025, global crowd-funding will exceed $93B.

While various tech sectors are coming on strong, gaming and real estate still have the hot hand, particularly in the US. For example, Cloud Imperium, maker of the online multiplayer game Star Citizen, raised their first $2M from 3rd-party crowd-funding. However, afterward, they created their own funding portal with no time limit, and managed to raise an astounding additional $52M, only pledging new versions of the game in return.

Until recently, all crowd-funding was “rewards-based”, whereby people committing money received something back in return from the project being funded, from sample products, to movie tickets, to t-shirts. The important thing was not the intrinsic capital value of the item, necessarily, but the inherent value of the project itself.

So now we return to the question of, is such a platform beneficial for space-related entrepreneurial startups? In many cases, it has been, particularly if the goal is early publicity and traction for the new startup in question. To that end:

1. Planetary Resources, a company pursuing asteroid mining, raised over $1M for an asteroid-hunting telescope
2. Kicksat raised $75,000 for their prototype “personal spacecraft”
3. Southern Stars raised $117K from 2700 backers to build SkyCube, a personal cubesat controlled by a smartphone.
4. Hyper-V raised $73,000 on Kickstarter for a plasma thruster
5. Skycorp/Spaceref raised over $125,000 to fund a rescue attempt of a 35-year old solar probe, to partial success.
6. The MarsOne colonization project raised $313K in two months on IndieGoGo

However, we should also mention Golden Spike, which only raised about 10% of a $250K funding goal, but somehow they do not see this as a failure.

So it would appear that small space startups are gaining some early ground, but in terms of hard dollars, in most

cases, it's usually only a fraction of what they really need.

Nanosatisfi, for example, raised about $110k of a $1.2M total round in late 2012/early 2013 using crowd-funding, the other 90% being raised via conventional channels. In late July of this year, they announced a $25M round, entirely from Venture Capital. The company has since been rebranded as Spire. So perhaps if the crowd-funding is just successful enough, the free publicity from such actually attracts conventional angels and VCs, always on the hunt for a new deal.

NOW IN THE US: "EQUITY" CROWDFUNDING

Equity crowd funding is essentially "Kickstarter with stock" it is similar to angel investment in its function.

In the US, this was legally enabled by the 2012 JOBS act (Jumpstart Our Business Startups), a major sea change in how rapid funding of startups could be accomplished, bypassing the onerous rules and regulations imposed on Wall Street by Sarbanes-Oxley and Dodd-Frank years before (which resulted in IPOs plummeting). Because of this, the IPO is making a comeback, and in 2014, with the advent of JOBS Title II, equity crowd-funding platforms are taking off quickly.

Of course, there are still hoops to jump through.

Most platforms charge 7-12% fee to begin.

In addition, unless the platforms are owned by established angel investor groups, a startup is required to perform their own due diligence concerning accreditation of the investors taking part in the crowd-funding platform.

There are a lot of hidden additional costs, as shown in the image below.

COSTS OF EQUITY CROWDFUNDING

	Offerings of $100,000 or less	Offerings between $100,000 and $500,000	Offerings of more than $500,000
Compensation to the intermediary[i]	$2,500 - $7,500	$15,000 - $45,000	$37,500 - $112,500
Costs per issuer for obtaining EDGAR access codes on Form ID[ii]	$60	$60	$60
Costs per issuer for preparation and filing of Form C for each offering [iii]	$6,000	$6,000	$6,000
Costs per issuer for preparation and filing of the progress updates on Form C-U[iv]	$400	$400	$400
Costs per issuer for preparation and filing of annual report on Form C-AR[v]	$4,000	$4,000	$4,000
Costs for annual review or audit of financial statements per issuer	Not required	$14,350	$28,700
Costs per issuer for preparation and filing of Form C-TR to terminate reporting[vi]	$600	$600	$600

(source: Forbes)

Equity crowd-funding has made a huge splash in the past year+. Thanks to Title II, more portals are opening up for accredited investors all the time. According to WealthForge, over $172M was collectively raised in the last 12 months, by equity crowd-funding, based on reported transaction volume. $63M was in real estate. $11.2M was dedicated to Health, Solar energy, and AgTech. The remainder was dedicated to "Generalist" startups, mostly in the tech and biotech sectors.

But in the world of equity funding, it's still largely *caveat emptor* for startups willing to take advantage of the opportunity. According to the law, as stated in the previous section, if a startup goes this route, due diligence is their own responsibility, as opposed to working with established angel or VC groups. This means it's up to the startup to confirm that an investor from one of these portals is indeed "accredited", as it's not the responsibility of the portal to confirm this. There are other regulations that could also strangle the proverbial baby in the crib, if one inadvertently

runs afoul of them. And the SEC has been known to completely unravel an otherwise "done deal" because the paperwork had an error.

TITLE III: A DISASTER IN THE MAKING?

But if things were not interesting enough with Title II, the SEC proposed rules for an upcoming Title III of the JOBS act on October 23rd of last year. If approved (not as of publication time), it would allow *non-accredited investors* to participate in equity crowd-funding. Title III would introduce an entire new dimension; if Title II was Kickstarter with shares, Title III is "IndieGoGo with day traders". The good news is that, due to regulations and limits on how much an entrepreneur can raise, it will not be used as much as Title II, at least at the outset.

Current rule-making proposals make it likely that entrepreneurs who use Title III will only be able to raise $1 million in funding, annually, and crowd-funding platforms dedicated to Title III would be required to register with the SEC (but not as official Broker-Dealers). In addition, the fee structure would be very prohibitive. Under proposed regs, it could cost a company as much as $39k to raise $100k, and $150k to raise $1M.

The pressure to go ahead with Title III started when Oculus Rift, a company that raised a little more than $2 million from 9,500 backers on Kickstarter, ended up selling to Facebook for $2 billion. What resulted was indignant rage, for if the backers had received company stock instead of company T-shirts, they would have seen close to a 1,000 percent ROI.

Nevertheless, many see non-accredited crowd-funding as an unmitigated disaster in the wings, as more unsophisticated, "low information" investors flock to the opportunities the platform provides, but could easily fall prey to unscrupulous operators.

The other bad news is that most crowd-funding investors won't be able to *act* like successful angel investors, because they do not know how. Successful angel investors play the numbers diligently and ruthlessly, with a pool of capital and a lot of patience that non-professionals simply do not bring to the table. Angels invest in industries they know well; they do a lot of due diligence, spend time mentoring the companies they invest in, and they diversify. Nevertheless, most of their investments fail. They still are fortunate to have maybe 10-20% of their investments successful to make them enough money to offset their other losses, but they are seasoned pros, with a deep well to draw from. Title III day traders won't have that background or pool of ready capital to draw from.

In addition, there is no "safe harbor" for equity crowd-funding, just a Title III regulatory hurricane. Crowd-funding's extensive registration and disclosure requirements manage to be simultaneously too heavily regulated for businesses to use and too poorly regulated to protect investors. In an attempt to reconcile these diametric failures into something resembling a useful law, the SEC released a 585-page rule proposal, which no one will understand fully, thus scaring away a lot of potential participants.

FUTURE PORTENTS

While equity crowd-funding has a lot of potential in the longer run, allowing non-

accredited investors in the mix could "poison the well", and create such problems that a lot of pro investors may end up avoiding crowd-funding portals in the end, and returning to traditional methodologies. "Democratization" of fundraising for startups of any kind in any industry can only go so far before things get too complicated to effectively manage. For example, what is the "Exit strategy" for a non-accredited crowd-funded startup? What is the liability? How do they do due diligence? Where's the reporting requirements?

In the world of space related startups, so far we're only seeing a small fraction of the total money raised done via non-traditional means. This author does not see that situation changing for a number of years yet. However, the publicity created by the crowd-funding effort can effectively attract additional investment via more traditional means.

Thomas Andrew Olson is the founding partner of Exodus Consulting Group, prime contractor to the Space Frontier Foundation, for project management of the annual NewSpace Business Plan Competition. Exodus also performs business planning and development services for startup and growing firms, particularly in the Space-Scalable™ arena.