**NAME: JUNAID KHAN AFRIDI**

**ID: 13807**

**SUBJECT: ENTREPRENEURSHIP**

**SUBMITTED TO: Sir ZEESHAN IBRAHIM**

**EXAMINATION: FINAL TERM**



**IQRA NATIONAL UNIVERSITY**

**QUESTION 1:**

**Mid Atlantic Recycling:**

Mid-Atlantic Recycling, LLC’s area of business will be to collect, recycle/compost, and market waste from municipality waste processing plants for use use as a consumer good. This recycled product will meet two critical needs:

1. It will give municipalities a feasible and cost effective alternative to landfilling the waste, and
2. It will help meet the growing demand for organic soil enhancers and fertilizers. The material that will be recycled is human waste sludge.

**Market**

There are customers at both ends of our supply chain that will benefit from our services and products. Municipalities will benefit from our service by having an alternative means of waste disposal. Other potential customers who will benefit from our compost product include turf farms, fertilizer manufacturers, nurseries, landscapers, golf courses, homeowners, and even the federal government for use in highway construction reseeding. Therefore, we have two basic market segments; those waste treatment facilities which will benefit from our services and consumers who will benefit from our product.

The Worldwatch Institute reports that landfills are overflowing and the costs of disposing of sewage and garbage is rising. City leaders can relieve over extended municipal budgets, prevent the contamination of drinking water, and help farmers build healthier soils by recycling garbage and human waste back to farms. At least 13 U.S. states have 6 years or less before all of their landfills are completely full. (Paper 135: Recycling Organic Waste: From Urban Pollutant to Farm Resource.)  We offer a service by which municipalities can dispose of their waste without it having to be land filled anywhere. This is of great value to this customer.

At the other end of our process are the users of our compost. According to Cornell University (www.cals.cornell.edu/dept/compost.feas.study.html) composting is experiencing a resurgence of activity which is driven by increased understanding of the agronomic benefits of compost utilization, and rising disposal costs for municipal wastes. Also, according to Purdue University (www.ctic.purdue.edu/Core4/Nutrient/ManureMgt/Paper35.html) consumption of compost in the commercial market is growing due to people looking for a more organic or natural substitute for traditional chemical fertilizers. Recycling is at the forefront of responding to this growth trend in the Mid-Atlantic USA. We will initially focus on selling compost to fertilizer manufacturers, nurseries, and landscapers. We already have commitments from a fertilizer manufacturer and a landscaper to purchase 600 tons per year or more of our compost material.

Five major market segments for compost have been identified:

* Agriculture (for food and nonfood crops and sod farms).
* Landscapers (for industrial and commercial properties; golf courses, cemeteries, and athletic fields; landfill covers; and damaged soils).
* Nurseries (for plant and forest seedling crops and reforestation projects).
* Public agencies (for highway median strips, parks, recreational areas, and other public property).
* Residents (for home landscaping and gardening).

**Competition**

Our service offers a feasible, even desirable, and alternative to traditional means of disposing of human waste. Our product is a value added, soil enhancer that appeals to the growing environmental conscientiousness among consumers. Direct competition is almost nonexistent. We intend to position ourselves as the logical, economical choice for human waste disposal and compost production in West Virginia and the Mid-Atlantic region.

**Expectations**

**Forecast**

The start-up funding will be provided as follows: Owner equity investment of in the form of a loan from the Regional Council of Governments Revolving Loan Fund; this loan is secured by the owner’s real estate assets. The Regional Revolving Loan Fund is an economic development fund sponsored by three West Virginia counties:  Mercer, Greenbrier, and Monroe.

**Financing Needed**

We will be getting nearly $1,000,000 from two sources $850,000 dollar loan based on our assets and $150,000 from the owners.

**Question 2**

Give at least 20 examples innovation of products around the world:

**Clean Hairs, No Hands:**

This 15-minute shampoo treatment begins when you lean your head back into a machine that looks like a sink at the salon. First it maps your scalp, then it shoots streams of warm water and foam shampoo from its 28 nozzles before 24 silicone “fingers” work up a lather. One conditioning mist, scalp massage and light blow-dry later, you’re done. **Nathaniel Penn**

**Doctor on Board:**

Your car is already able to call for help when an accident occurs, but within a few years, it’ll tip paramedics off to probable injuries too. E.M.T.’s would know the likelihood of internal bleeding or traumatic head injury, for example, before arriving on the scene, which would help them decide whether to move you to a Level 1 trauma center or a standard emergency room. Researchers at the University of Michigan International Center for Automotive Medicine have created the predictive models by cross-referencing the crash data provided by sensors on cars, like speed and location of impact, with 3-D scans of accident victims.

**Edyn:**

When stuck into the soil, Edyn Garden sensor collects and analyzes data about the current weather and soil conditions.

It tracks light, humidity, temperature, soil nutrition and moisture, and then suggests what plants will thrive in your garden. This is done through cross-referencing with online plant, soil science and weather databases.

The Edyn Water Valve controls the duration and intensity of your sprinkler system based on information gathered from the Garden Sensor. No more under or over-watering. The Edyn App shows you everything that’s going in your garden and the sky above it.

**Quit bit – The world’s first smart lighter to help you quit smoking:**

Quitting any addiction might be hard, especially when you have no way of measuring how much you’re indulging. The Quit bit lighter aims to help you quit smoking one cigarette at a time.

It displays how many cigarettes you’ve smoked, and how long till your next one. Individual goals can be set within the mobile app. Quitbit’s idea was spawned when the founder of Quitbit, Ata Ghofrani, had no idea how many cigarettes he had smoked in a day. He realized that you couldn’t quit or change any habit if you didn’t first have a way to measure your behavior.

**GlowCap– Save lives by never forgetting:**

Forgetting to take their meds is a fairly common problem that most people face. In the case of serious conditions, this can be a big issue.

GlowCap solves that by providing a visual and audio reminder when it’s time to take your pills. If the reminders are ignored, it calls a caregiver, and also sends your doctor a monthly progress report on how diligent your pill-taking has been. It also comes with a button that places an order for your next prescription at the pharmacy.

Apart from the light indicator and ringtone, I really like how the monthly progress report motivates people to take their meds. As the report is also sent to the doctor and caregivers, patients feel the need to be more accountable. This makes them more likely to take their pills and become healthier

### Ministry of Supply – The dress shirt from space:

Ministry of Supply describe their products as “Performance Professional Apparel for the Modern Man”.

Their products focus on a single core narrative: to create clothes that can keep us cool during our daily work commute, and keep us warm when we enter the air-conditioned office.

Making use of phase-change materials (PCMs), the same tech used in NASA spacesuits, MoS shirts takes heat away from you when you’re feeling warm, and gives it back to you when you’re feeling cold.

But the feats don’t just end there.

Their shirts also come with odor control, dynamic stretch, and are wrinkle-free too!

**Skylock – The only solar-powered, GPS bike lock in the world:**

There are several problems with a conventional bicycle lock. It’s relatively easy to break, you won’t know when it was stolen, and you’ll never be able to track it. It happens so often it’s not even funny.

Most companies work on improving the durability of the chains, but thieves are still able to break them easily.

Skylock was developed to change that. It uses technology to bring about the following features:

* **Keyless unlock:** Bluetooth LE sensors allows Skylock to unlock when you’re near your bike.
* **Theft alerts:** Sends alert through Wi-Fi if your bike has been moved or tampered with.
* **Crash alert:** Helps you to call for help when you’ve been in a crash.
* **Solar powered:** Never have to change your Skylock battery.

We love how Skylock has adapted technology found in smartphones and applied it to bicycle locks. The ability to track your bike, and prevent it from being stolen are what makes Skylock so amazing.

With Skylock, you can rest easy knowing that your beloved ride is in safe hands.

**The Anti-Slouch Screen:**

If you slump down when you’re typing on an Ergo Sensor monitor by Philips, it’ll suggest that you sit up straighter. To help office workers avoid achy backs and tired eyes, the device’s built-in camera follows the position of your pupils to determine how you are sitting. Are you too close? Is your neck tilted too much? Algorithms crunch the raw data from the sensor and tell you how to adjust your body to achieve ergonomic correctness. The monitor can also inform you that it’s time to stand up and take a break, and it will automatically power down when it senses that you’ve left.

**Your body, Your login:**

A team of Dutch and Italian researchers has found that the way you move your phone to your ear while answering a call is as distinct as a fingerprint. You take it up at a speed and angle that’s almost impossible for others to replicate. Which makes it a more reliable password than anything you’d come up with yourself. (The most common iPhone password is “1234.”) Down the line, simple movements, like the way you shift in your chair, might also replace passwords on your computer. It could also be the master key to the seven million passwords you set up all over the Internet but keep forgetting.

**Terrifying Playgrounds:**

Modern playgrounds are for wimps. Instead of short climbing walls, there should be towering monkey bars. Instead of plastic crawl tubes, there should be tall, steep slides. And balance beams. And rope swings. The rationale is that the more we shield children from potential scrapes and sprained ankles, the more unprepared they’ll be for real risk as adults, and the less aware they’ll be of their surroundings.

**Rollercoaster with wings:**

On traditional roller coasters, your weight is centered over the wheels, but two new coasters — the X Flight at Six Flags Great America and Dollywood’s Wild Eagle — have you hanging off the side of the track, dangling in midair. It’s kind of like you’re sitting on the wings of a plane. The Swiss company Bollinger & Millard had to completely reimagine the seat design to handle the stress caused by the differently distributed weight.

**A blood test for depression:**

This year, Eva Redei, a professor at Northwestern’s Feinberg School of Medicine, published a paper that identified molecules in the blood that correlated to major depression in a small group of teenagers. Ridge Diagnostics has also started to roll out a test analyzing 10 biomarkers linked to depression in adults. “Part of the reason there’s a stigma for mental illness, including depression, is that people think it’s only in their heads,” Redei says. “As long as there’s no measurable, objective sign, we’re going to stay in that mind-set of ‘Just snap out of it.’ ” Blood tests will take mental illness out of the squishy realm of feelings. And as Lonna Williams, C.E.O. of Ridge Diagnostics, says, they’ll help people understand “it’s not their fault.”

**CSI: Bathrooms:**

Researchers at the Wyss Institute for Biologically Inspired Engineering at Harvard are working on a technology that would make household cleaning supplies much smarter — almost like a spray able forensics team. When the spray hits a surface where there are pathogens present, like your bathroom sink, it would bind to the bad stuff and turn a color — orange, say, for E. coli. Then you could knock it out with a stronger disinfectant

**A new firefighters:**

You need a lot of water to put out a sizable blaze, and the chemicals used in fire extinguishers can be toxic (halons, the most effective chemical fire suppressant, create holes in the ozone layer). So the Defense Advanced Research Projects Agency at the Pentagon has developed a hand-held wand that snuffs out fires, without chemicals. According to the program’s manager, Dr. Matt Goodman, an electric field destabilizes the flame’s underlying structure rather than blanketing the fire to smother it. Eventually, the technology could be used to create escape routes or extinguish fires without damaging sensitive equipment nearby

**The constant gardener:**

Rather than spray water, fertilizer and pesticides across their fields, many industrial farms are taking a more targeted approach, using wireless soil sensors and G.P.S.-enabled equipment to determine which spots need the most attention. Soon, you’ll be able to use similar technology in your front yard. The home landscaping company Toro already has a line of consumer-grade moisture sensors that turn on the sprinkler system when your lawn is dry. It’s a good start, but Sanjay Sarma, of the Field Intelligence Lab at M.I.T., is working to produce tiny, inexpensive sensors that you scatter across your lawn by the dozens and that will track everything from bug infestations to mineral deficiencies. Then they’ll tell you what to do about it: three spritzes of pesticide to the tomato plants, stat.

**Robo-petting:**

Petting a living animal has long been known to lower blood pressure and release a flood of mood-lifting endorphins. But for various reasons — you’re at work, or you’re in a hospital, or your spouse is allergic to dogs — you can’t always have a pet around to improve your mental health. So researchers at the University of British Columbia have created something called “smart fur.” It’s weird-looking (essentially just a few inches of faux fur) but its sensors allow it to mimic the reaction of a live animal whether you give it a nervous scratch or a slow, calm rub. Creepy? Yes. But effective

**Sleep better:**

Researchers at Merck have created a pill called suvorexant that essentially makes you a narcoleptic for a night. It turns out that might be the best cure for insomnia. Unlike existing sleep aids, the drug (which will likely be reviewed by the F.D.A. later this year) works by turning off wakefulness rather than by inducing sleep. “There’s good reason to believe this pill brings on more R.E.M. sleep and better rest,” says Dr. Emmanuel Mignot of Stanford University. “It’ll be less of a hammer on the brain.

**Electric clothes:**

Physicists at Wake Forest University have developed a fabric that doubles as a spare outlet. When used to line your shirt — or even your pillowcase or office chair — it converts subtle differences in temperature across the span of the clothing (say, from your cuff to your armpit) into electricity. And because the different parts of your shirt can vary by about 10 degrees, you could power up your MP3 player just by sitting still. According to the fabric’s creator, David Carroll, a cellphone case lined with the material could boost the phone’s battery charge by 10 to 15 percent over eight hours, using the heat absorbed from your pants pocket

**The new coffee:**

Soon, coffee isn’t going to taste like coffee — at least not the dark, ashy roasts we drink today. Big producers want uniform taste, and a dark roast makes that easy: it evens out flavors and masks flaws. But now the best beans are increasingly being set aside and shipped in vacuum-sealed packs (instead of burlap bags). Improvements like these have allowed roasters to make coffee that tastes like Seville oranges or toasted almonds or berries, and that sense of experimentation is trickling down to the mass market; Starbucks, for instance, now has a Blonde Roast. As quality continues to improve, coffee will lighten, and dark roasts may just become a relic of the past

**Google:**

Google is one of the most prominent computing innovation examples, offering a much better online experience for consumers. It also is included as one of the biggest breakthrough innovation examples from its introduction of Adwords, which changed the advertising world.

**Question 3:**

**Explain opportunity-based theory of entrepreneurship.**

Opportunity–Based Entrepreneurship Theory: The opportunity-based theory is anchored by names such as Peter Drucker and Howard Stevenson. An opportunity-based approach provides a wide-ranging conceptual framework for entrepreneurship research (Fiet, 2002; Shane, 2000). Entrepreneurs do not cause change (as claimed by the Schumpeterian or Austrian school) but exploit the opportunities that change (in technology, consumer preferences etc.) creates (Drucker, 1985). He further says, “This defines entrepreneur and entrepreneurship, the entrepreneur always searches for change, responds to it, and exploits it as an opportunity”. What is apparent in Drucker’s opportunity construct is that entrepreneurs have an eye more for possibilities created by change than the problems. Stevenson (1990) extends Drucker’s opportunity-based construct to include resourcefulness. This is based on research to determine the differences between entrepreneurial management and administrative management. He concludes that the hub of entrepreneurial management is the “pursuit of opportunity without regard to resources currently controlled” (pp.2).
Elements of Opportunity
Based on literature review and very careful observation of the entrepreneurial environment the following elements of opportunity are identified.
Opportunities Are Often Tied to Specific Purposes: Opportunities are tied to specific purposes and circumstances. There is a specific purpose for every opportunity and in a given location. People have to meet certain individual, read book, listen to radio or tapes and do several other things in given locations. The privatization and commercialization processes in Nigeria open up investment opportunities based on current circumstance.
Opportunities Are Endless: Just like waves of the sea, life is a succession of opportunities (Dangote 2005). The opportunities that come on individuals or organization’s way may determine the rate of his/its growth or progress. They are arranged as interjection that terminates a phase and opens up the next. The Nigerian Enterprises Promotion Decree 1972 opened up wide opportunities for Nigerians to venture into entrepreneurial career. On the other hand the
1986 Structural Adjustment Programme (SAP) created many hardships and blocked several areas of opportunities for entrepreneurs.
Greatness or Success is a Product of Opportunity: Abioye (1996) noted that every greatness is a product of opportunity. That there were great names that had made marks in the generations who would never have been mentioned if it was not for an opportunity that came their way.

An Opportunity opens up to another: An opportunity well utilized opens up to another. Opportunities are in sizes and phases. Just as in the home, an outer door leads to an inner one so it is with opportunities. Dangote (2005) as pointed out above illustrates this point.
Opportunity Elevates people and organization: Abioye (1996) observed that opportunity does not reduce people rather it increases them. He illustrated it with the Biblical parable of a man with five talents. For utilizing well the opportunity of five talents he received the opportunity to use ten.
Opportunities have Companions: Another aspect of the concept of opportunity is it features of companionship. Opportunities are often enveloped in challenges. To refuse to rise up to challenges or not to see it when it comes ones way is to allow opportunity pass by unattended to (Batty, 1974).
Opportunities involves risk taking: Risk in this sense relates to deliberate departure from the known to the unknown. The individual forsakes what he/she has in the hope of getting a better one that awaits him or her (Schumpeter, 1934, Drucker 1985 and Tushman and Nelson, 1991).
Opportunity involves facing opposition: There is the fact of opposition to opportunity which is failure to utilize it. The reason why some live better than the others is their attitude to opportunities that come their ways. Some embrace theirs while others despise and toy with theirs. The key to success is to learn to emphasize ones advantages and de-emphasize what looks like disadvantages. (Kilby, 1971 and Inegbenebor, 1995).
Opportunity may be in form of Luck: People often say that an element of lack is involved in entrepreneurship. This, others call destiny. However, any destiny not given an appropriate drive will lie dormant and impotent. Every destiny is to be driven to its destination (Batty, 1974).
Exploitation of opportunity involves discipline: This relates to having a sense of denial and control. Discipline places a nonnegotiable and uncompromising demand on people. By discipline, one responds to issues of life not as he or she wants or likes it to be, but as they are required or needed to be done. One refuses to respond to emotions in order to face the realities of life (Abioye, 1996). It requires disciplines in man, money and material management (Stevenson and Sahlman, 1990).
One should expect opportunity always: To look for opportunity as a matter of necessity is a normal thing to do. It is entrepreneurship. This is because opportunity is to be expected always. It is this expectation that translates pictures into reality. What you do not expect you cannot see. Therefore, one should always expect business opportunity (Meredith, Nelson and Neck, 1990).