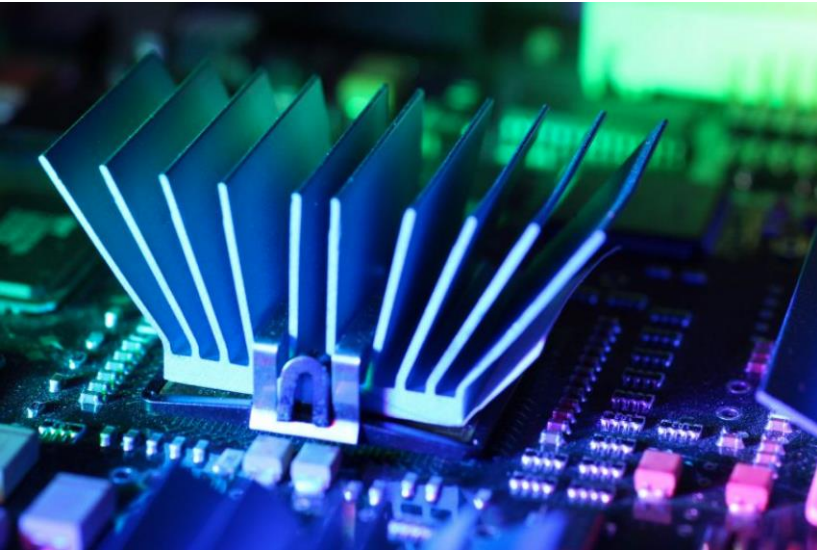


Aydonat Atasever

Managing Partner

Zaxe 3D Printing Technologies



COUNTRY

Turkey

CONTACT

<https://www.zaxe.com/tr>

DATE OF INTERVIEW

07.01.2022

METHOD

Zoom interview

LENGTH

40 Minutes

INTERVIEWED BY

Zeynep Erden Bayazit

Zaxe is a company that was co-founded by three partners in 2015 to develop technology in the field of the three-dimensional printing industry and to capture the advantage of being the first in the three-dimensional printing industry in Turkey. In about 2 years, Zaxe developed its first product in the market.

Zaxe targeted the education industry first. They sold their early products to educational institutions that established three-dimensional printer laboratories, letting their students to use 3-D printers for the first time. In 2017, Zaxe started looking for the initial investment rounds to provide more resources and equity to the company. In 2018, it received its investment from the first Angel investor group, and the product range was not only used by students in the education industry, but also the first three-dimensional printer entry mode for the manufacturing SMEs. Atasever explains this as the second growth point of Zaxe as they expanded the product range serving not only for the B2C users, but also for the companies serving to B2B market.

Together with the engineering team, they developed the product line in about 2 years. Having reached a certain level of production capacity at the end of 2019, Zaxe had the chance to receive investment from the group as a series A investment tour, after showcasing its entry products to medium and upper-scale industrial organizations and showing that it has the potential to sell to the educational institutions in sufficient numbers. The investment aims to allocate more equity to R&D and technology development and to bring the products that have come so far to a level that can compete globally. Zaxe aims to achieve this goal by investing mainly in people and R&D in terms of resource allocation.

NOTE

Understanding of Growth

According to Atasever, growth is essentially their sales figures, as well as their market share. Zaxe could not be differentiated from other competitors in the markets without technology development. That's why they invest in people.,

As Atasever explains, Zaxe's initial growth was focused in production, the engineering team worked on new products. Starting from the end of 2020, their strategy turned towards sales and marketing to increase their penetration into global markets. Along with the digital advertisements, there has been growth in the online environment so that they can penetrate the markets quickly. At the same time they hired a product purchasing engineer, to manage their supply with more competitive prices or more competitive features.

As a company, Zaxe aims to grow completely organically. They grow based on technology, investing in people and R&D, developing a sophisticated product range fitting the vertical market needs.

Motivations for Growth

As a startup, Atasever tells, growth is natural and demanded for attracting investments. In addition to this, self confidence is necessary for the whole team to believe that they can compete globally. Zaxe workers attended one of the world's largest fairs in Frankfurt in November, which boosted their confidence. 'We were more motivated, not only as the founders or investors, but also the whole team including the junior staff'.

Challenges from Growth

At the present, Atasever stated that, Zaxe's biggest problem is scaling the production. Atasever said,



We know how to design the product correctly. We know how to do the right engineering. We can make the prototype and the manufacturing for entry level to the market. But we encounter a big breakdown in scaling. We don't know how to grow 100 times bigger than our current level. With our engineering knowledge and experience, this is the biggest challenge in Zaxe.



Key Success Factors

Atasever said that,

“

In our KPAs, there are two KPAs on the Sales and Marketing side, the number of products produced and sold is tracked on conventional excels and reports. In addition to this, expanding the product line is what our engineering team works on.

”

Business leader importance

Atasever said that, working together as a team in product development is the reason of success.



Cooperation with Universities

Atasever stated that cooperating with universities is first on their agenda this year. They already have relations with universities through students, so that's something they are experienced in. Students find them and they let them learn and gain experience with their products. But now as Zaxe needs to expand its manufacturing capacity, they would like to work with an academic who is an expert in plant design and industry 4.0.

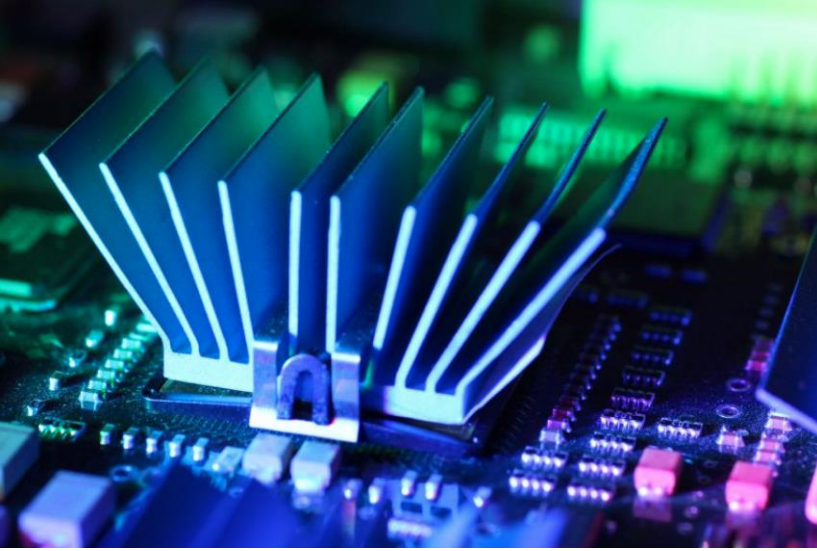
“

The challenge is they do not know how to contact universities and how to find the right person. The right person is an academic who is willing to work on real life challenges with Zaxe.

”

Başar Şahinbeyođlu

CEO and Co-Founder
Acrome Robotics



COUNTRY
Turkey

CONTACT
<https://acrome.net/>

DATE OF INTERVIEW
07.05.2021

METHOD
Zoom interview

LENGTH
45 Minutes

INTERVIEWED BY
Sebnem Burnaz

Başar Şahinbeyođlu founded Acrome Robotics in 2013, one of the second term finalists of İTÜ Çekirdek (İTU Incubation Program). Although there was support from İTÜ Çekirdek and TÜBİTAK in terms of financing during the foundation years, it was not enough in terms of the sustainability of the operations. Then they teamed up with National Instruments, whom Şahinbeyođlu contacted to buy electronic boards. The company has taken Acrome to the Alliance Partner group.

Acrome Robotics developed automation and robotics solutions for Turkey's leading companies such as Arçelik, Vestel, THY, Aselsan and Roketsan between 2014-2016. In this period, while the company was in the survival stage, Acrome Robotics recruited 4-5 students from İTU as part-time employees and 1 full-time employee, and the product development process continued under the control of Şahinbeyođlu. In 2015, Acrome Robotics launched its first products in line with the market research of National Instruments. These products were on laboratory systems and sales were made through National Instrument's distribution channels. In 2017, their initial product line was complete and Acrome Robotics received an investment. In 2018, Acrome Robotics joined the Innogate International Acceleration Program which offers Turkish technology companies access to international connections, business model and strategy development opportunities. Passing the early the survival years, in the same year, Acrome Robotics was able to develop a scalable idea and established the riders.ai, a cloud-based robotics development and competition platform. Reaching a turnover of 400 thousand dollars in 2019, Acrome Robotics has deepened its 5-year hardware focus as of 2020 and reached around 300-400 customers in 35 countries. By 2021, the team had grown to 30-35 people.

NOTE

HEI = Higher education institution | SME = Small and medium-sized enterprise

Understanding of Growth

Şahinbeyođlu believes that growth depends on the conditions that make up the company.

Motivations for Growth

According to Şahinbeyođlu, the desire to succeed and the inability to accept failure were one of the motivations that fueled him. Şahinbeyođlu adopts the motto "Be very cautious when starting out, but do whatever you can if you set out on the road" and he thinks that it is very important to continue with patience and perseverance without giving up.



Challenges from Growth

One of the first challenges they faced in the growth process was the risk factor. Şahinbeyođlu said that Turkish Economy Bank (TEB), which had a package and an agreement with ITU Sciencepark to support entrepreneurs, had an incredible support and that they were able to do business with big companies thanks to the letters of guarantee given by the bank. He added that when doing business with large companies, not being able to finish the job and not completing the job in accordance with the regulations were other challenges Acrome faced. Stating that another challenge is capital, Şahinbeyođlu said that:

“

The biggest problem Acrome faced in 2015 is the concern of not being able to pay the salaries of the next month.

”



Key Success Factors

Şahinbeyoğlu said that in the hardware business where Acrome Robotics operates, there is too much risk and there is not enough financing. In this aspect, Şahinbeyoğlu stated that the right thing to do at this point is to establish a working business model and invest the profits back to business. He also emphasized that one of the key factors is the mutual trust built with the investors. Şahinbeyoğlu described it as:

“If you don't trust the entrepreneur, don't expect anything from them. Because growth cannot happen in any relationship that is not built on trust. You can't expect any startup to grow unless you also lose some money.”

Business leader importance

According to Şahinbeyoğlu, being able to empathize, making the employee feel very happy at work, establishing good relationships, providing motivation and determination are the key competencies in leadership.

Cooperation partners

Acrome Robotics collaborated with National Instruments and became one of its Alliance Partners. Thanks to this collaboration, Acrome Robotics had a chance to have a market share as an SME at the point of survival by benefiting from National Instruments's market analysis. At the same time, the products they produced were also delivered through NI's distribution channels.

Cooperation with Universities

In terms of university-industry cooperation, there were consultancy relationships in the academic segment, but there was no cooperation at the student level. Thanks to their sponsorship of the Turkish Autonomous Robots Conference and the Turkish Automated Control Conference and the connections they got from these events, they were able to establish these consultancy relationships.

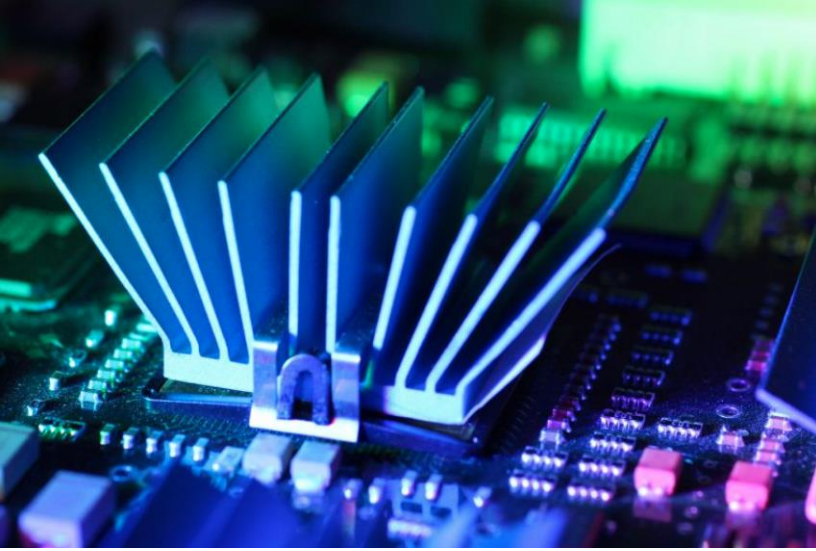
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Şahinbeyoğlu thinks that such collaborations are very valuable if there is competence in the university. But the benefit here is undecided as to whether there is any benefit beyond consulting. Stating that such cooperation processes are regulated affairs, Şahinbeyoğlu asserts that it depends on what kind of initiative the university will take.

”

Cenk Tabakođlu

CEO
Lumnion



COUNTRY
Turkey

CONTACT
<https://lumnion.com/>

DATE OF INTERVIEW
07.05.2021

METHOD
Zoom interview

LENGTH
38 Minutes

INTERVIEWED BY
Sebnem Burnaz

Cenk Tabakođlu has been in business for 20 years. He started his career at Citibank in the banking sector in the Balance Sheet Management/Government Securities department. He then worked as executive vice president for 3 years in the field of retail banking at ING Bank Turkey. Tabakođlu has 5 years of CEO experience at Unico insurance company. He is the CEO of Lumnion company since 2019, a data analytics company that offers service to insurance companies.

NOTE

HEI = Higher education institution | SME = Small and medium-sized enterprise

Understanding of Growth

According to Tabakoğlu, it was not a growing company when he joined the company. From the moment he joined the company, they slowed down the work on the consultancy side and accelerated the product/service development. The company's growth phase began shortly after product development. Product development is required for technology and scale-up companies to grow, as he stated. Tabakoğlu also highlighted that the growth of the company is organic.

Motivations for Growth

He claims that the driving force behind growth is not income, but determination and ambition to succeed. Their main motivation is to outperform the market leader and become the most successful company. Furthermore, their motivation is to create technological innovations and make a difference.



Challenges from Growth

Tabakoğlu stated that,

“

Due to the company's growth and the pandemic, many of the new employees recruited did not have the opportunity to meet and get to know one another. They needed to find outstanding experts and employees because employees account for a large portion of the company's costs.

”

As a result, one of the most challenging aspects of business growth is the human resources department. It's challenging to keep good employees and recruit new ones in their industry because there's such a high demand for them. Since they are a small company, it is not easy to compete with the big companies in the market in recruiting.



Key Success Factors

He said that:

“ *they are giving company shares to keep the successful, young employees they discovered.* ”

They work with people who like stand on their own two feet. There is no corporate mindset in the company, and this leads to success. Their entrepreneurial spirit and willingness to take risks are two other factors that contribute to their success. They also prefer to work independently of space and time, and their goal is to succeed internationally.

Business leader importance

According to Tabakoğlu, most startups lack a strategic business manager. Without this leader, they are unable to provide the necessary network, and the company is unable to grow and receive investment.



Cooperation partners

They collaborated with a German company in Turkey, and through them, they were able to expand into Germany and Europe.

Cooperation with Universities

Collaborations with ITU Çekirdek exist, as do projects in the field of artificial intelligence with Sabancı University. However, there is little collaboration with universities in general, though they are open to collaboration. If the company collaborates with the university, it will be able to train its own employees by adding interns or employees to its structure and learn many new technologies. The company's contribution to the university is to demonstrate how theoretical knowledge is translated into practice. Senior students at Marmara University study the company's products as a lesson, and when the graduate student begins his or her career, he or she is familiar with the tool taught in the lecture.

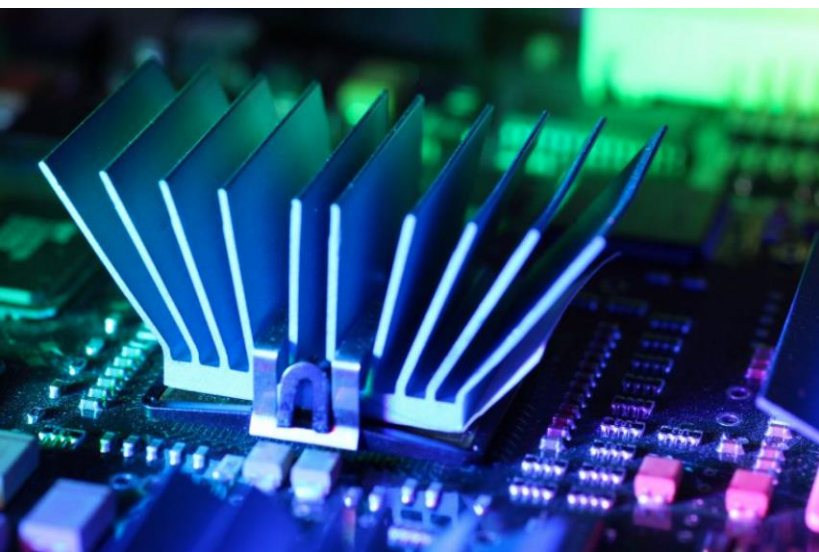
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Tabakoğlu thinks that new algorithms can be developed in collaboration with universities, and fine-tuning could be implemented to produce more accurate results. When a company is having technical difficulties, universities can be of assistance.

”

Cihat Kahraman

Director of Business Development
VSight



COUNTRY

Turkey

CONTACT

<https://www.vsignal.io/>

DATE OF INTERVIEW

15.06.2021

METHOD

Zoom interview

LENGTH

32 Minutes

INTERVIEWED BY

Zeynep Erden Bayazit

VSight is a software platform company that was founded in 2014 by two co-founders and now employs 12 people. VSight Remote allows experts to connect to the worksite and solve problems instantly and remotely. With VSight Remote Augmented Reality (AR) support, 2-way video and audio communication, PDFs, manuals, step-by-step instructions, and 3-D models are represented in the real world. The company started to grow in 2019, and since it is focused on remote work, it continued to grow by rapidly increasing its revenues during the pandemic.

NOTE

HEI = Higher education institution | SME = Small and medium-sized enterprise

Understanding of Growth

According to Kahraman, the primary indicator of growth is MRR (monthly recurring revenue). Month-over-month (MoM) growth, which displays the change in a given metric's value as a percentage of the previous month's value, is the essential measure when setting growth targets for the company, as he stated. When they normalized this indicator and took the 6-month average, they were attempting to keep the percentage above 15%. He mentioned that the company's priority has always been to grow and that growth should be organic. They realized they needed to act when the company was unable to grow or appeared to be stagnant, and they were attempting to determine where the error had occurred.

Motivations for Growth

Their main motivation for growth stems from their desire to be an industry leader.



Challenges from Growth

They had a difficult time finding capital and spent a lot of time looking for domestic investors and customers. They needed to accelerate their global expansion, but once they found the capital, it was a turning point for them. One of the current challenges is finding the right talent and assembling a solid team.

“

They had trouble finding good software engineers as an example of accessing talent. They were having problems because they kept their current engineer team in Turkey.

”

But they are now recruiting engineers from other countries thanks to global expansion. Because qualified engineers are in high demand around the world, they had difficulty finding and retaining them.



Key Success Factors

They have a team that has been working remotely since the beginning of the pandemic. The fact that the company's business model was digitalised from the start indicated that they were ready to work remotely, and their business model provided a significant advantage. They have a risk-taking company culture because they believe they learn by making mistakes. Following the error, they discuss how to avoid making the same mistake in the future. Cihat emphasized the importance of quick decision-making within the company as a key success factor. They value their customers' ideas; they have been following the lean methodology from the start and constantly incorporate customer feedback into their products. In this way, they are successful at cost-cutting, time management, and increasing customer satisfaction.

Business leader importance

They participated in an acceleration program in Lithuania after receiving investment in 2019. They received intensive training in this program; thanks to this training, they had the opportunity to consolidate their knowledge and put it into practice. In addition, they were constantly striving to improve themselves as company executives. He stated that leadership is essential in a team-oriented company because the company manager's leadership skills help gain the trust of the team. He also stated that:

“ ***Leadership should be prioritized in remote working because employee relations that are easily established in the office are hard to establish while working remotely. Collaborating with investors and their networks has become more accessible thanks to the trust that comes from the leadership.***”

”

Cooperation partners

They made an effort to cooperate with clusters in the automotive industry. Cooperation was possible because the cluster with which they cooperated was open to it and aware of its benefits.

Cooperation with Universities

Because they are located within ITU Sciencepark, they have the opportunity to collaborate with other companies that visit the Sciencepark. Furthermore, Sciencepark recommends startups to other companies and investors. Moreover, they benefited immensely from Sciencepark in terms of media and recognition, as well as from Sciencepark's mentorship.

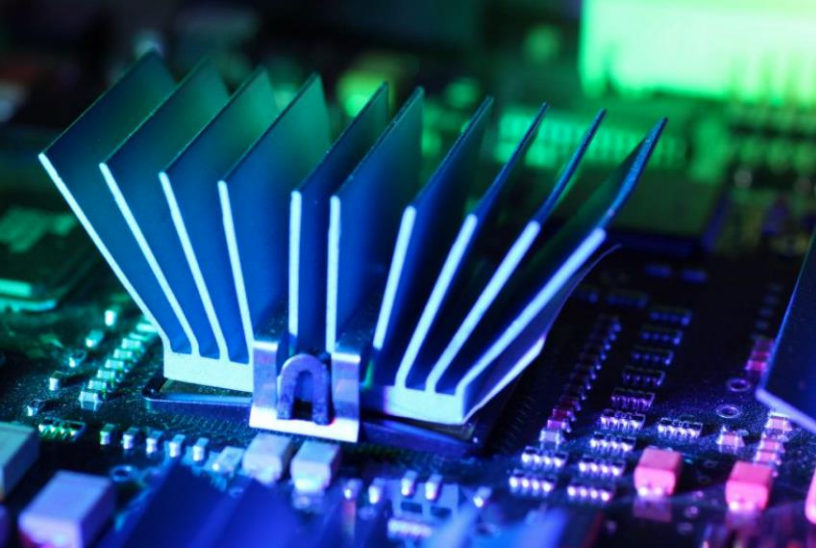
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He believes that universities should provide assistance to SMEs, particularly in terms of patents. They want to remain at ITU as a company in order to benefit from the ITU ecosystem in their future plans. Cihat also believes that universities have a great potential when it comes to providing companies with access to talent.

”

Elif Gamze Kaya Ok

EAE Electric.com



COUNTRY
Turkey

CONTACT
<https://www.eaeelectric.com/>

DATE OF INTERVIEW
04.06.2021

METHOD
Zoom Interview

LENGTH
45 Minutes

INTERVIEWED BY
Zeynep Erden Bayazit
Şebnem Burnaz

EAE Group of Companies; started its journey within the electricity sector in 1973 as the EAE Electric Company. EAE, which has been growing rapidly since the first day of its establishment, has gradually expanded its production and fields of activity by incorporating EAE Lighting in 1983, EAE Machinery in 1996, EAE Electrotechnics in 2004 and EAE Technology in 2009. Established EAE Italy for the sales and marketing operations based in Milan. This followed by EAE Russia in 2013. With the addition of Moscow based company and its factory established, EAE became a manufacturer in the CIS region. By establishing EAE Germany, EAE Australia in 2019 and EAE America in 2019, it has gained momentum on its global activities. EAE Group carries on its activities in accordance with ISO 9001 Quality Management, ISO 14001 Environmental Management and ISO 27001 Information Security Management System Standards. Conformance of manufactured electrical products to the world standards is certified as a result of the tests conducted by KEMA and CESI laboratories. In addition to all these, they substantiate their innovative line of vision with over 30 patents, 300 brands and 100 industrial designs.

NOTE

HEI = Higher education institution | SME = Small and medium-sized enterprise

Understanding of Growth

The company has grown organically, through product innovation. From its founding EAE has been an innovative firm, bringing new technologies to Turkey. Product development has been the key strategy. They have also entered new markets through market development. Capital has been a problem, but they have overcome this through incentives and finding a self-sustaining model. They invest continuously in the business. From its beginnings EAE has been an innovative firm, bringing new technologies to Turkey. Product development has been the key strategy. They placed systems in place and have invested in digitalization. As they became large, they started to spend more on R&D.

Motivations for Growth

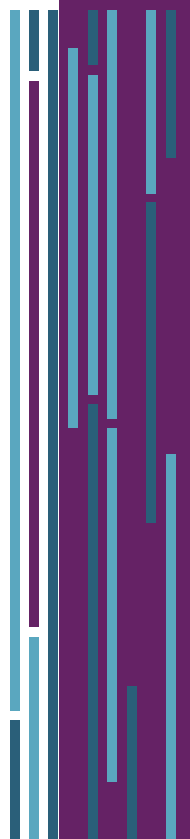
Elif explains that the founder, her father, has installed an organizational culture, comprising growth through innovation. Growth was a survival strategy.

As a manufacturing company finding the money was a challenge. In addition, as this company was selling through bids, it was challenging to compete with large companies in the beginning. The perception of being a 'Turkish' company was difficult. In order to get over this legitimacy problem, they have applied to international standards testing in their field.

Dedication, and persistence, as well as investing in new technologies helped them grow.

Challenges for Growth

As a manufacturing company raising the capital was the main challenge. In addition, as this company was selling through bids, it was challenging to compete with large companies in the beginning. The perception of being a 'Turkish' company has also been difficult. In order to get over this legitimacy problem, they have applied to international standards testing in their field and once they got the standards this challenge was resolved.



Key Success Factors

Dedication, and persistence, as well as investing in new technologies have been the major drivers for their growth. EAE growth is a story of recognizing opportunities and having an entrepreneurial mindset. They are also using their network.

Business leader importance

The founder has an entrepreneurial mindset, recognizing the opportunities and exploiting these opportunities. He had a clear vision and had a persistent personality, not afraid of taking risks. With his engineering background, he was able to use his knowledge in following the right technologies. His children, who are the successors, are also educated as engineers, and as such growth through investing in new technologies continue.



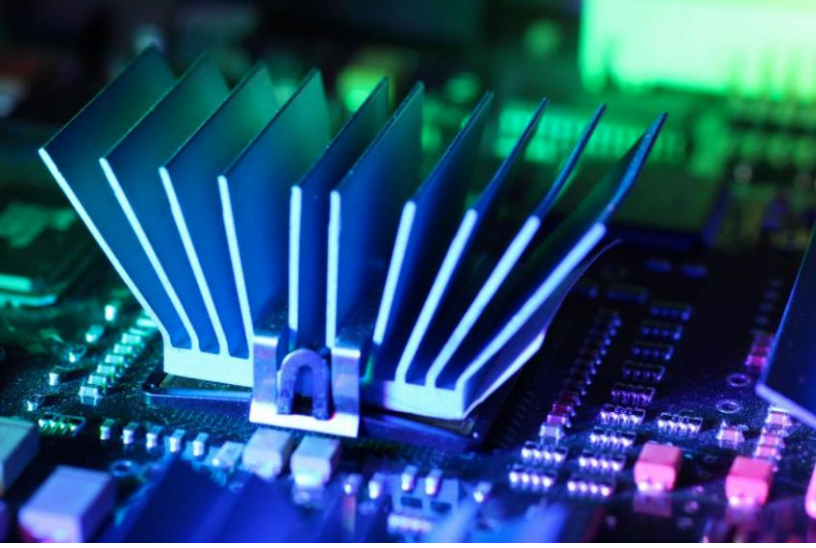
Cooperation partners

EAE is working in a niche market. They are cooperating with academics as consultants but not with a specific university per se. When asked about university cooperation Kaya Ok, explained that academics do not have much interest in applying their knowledge to industry. She believes most academics are not motivated in real life problems. Although they have not collaborated with universities, they are open to cooperation in R & D. Until now, they have done this through personal contacts with individual academics.

Having an electrical engineering background, Kaya Ok believes in systems design. Soft skills and business skills are needed. Access to capital, financial management are needed. They have used governmental incentives.

Esra Saribekir Fazlıođlu

Founding Partner
Saribekir Packaging



COUNTRY
Istanbul

CONTACT
<https://www.saribekir.com.tr/en/>

DATE OF INTERVIEW
22.05.2022

METHOD
Zoom Interview

LENGTH
51 Minutes

INTERVIEWED BY
Zeynep Erden Bayazit

Saribekir Packaging produces aerosol cans, two and three piece sanitary round food cans, easy open ends and twist-off closures. Combining its personnel having 40 years of know-how in canmaking with latest production technologies and supporting those with advanced R&D operations, Saribekir Packaging aims to be the leading company when it comes to reliability, innovation and competitiveness in its markets. Saribekir Packaging is the supplier of leading fillers in Turkey as well as Europe, Middle East, North Africa and the Black Sea region. Saribekir Packaging plans to grow in the metal packaging industry by extending its product mix and opening new production sites at other locations.

NOTE

HEI = Higher education institution | SME = Small and medium-sized enterprise

Understanding of Growth

Ms. Saribekir explains growth as a natural trajectory for a company. Their growth has been organic, vertical initially. The most important KPI is the turnover, profitability and efficiency

Saribekir Packaging has shifted from the food industry, which they initially focused on, to the aerosol industry. They have carried out an example of market development by presenting products to different markets using their current machines. As Fazlıoğlu described Saribekir Packaging's growth strategy, initially they appealed to different markets with the products at hand, then they adopted the diversification strategy by offering different products to different markets. Asserting that export is also an important growth strategy, Fazlıoğlu said that the jars and aerosol cans they produce are considered as a bulky cargo and the freight prices are quite high. Therefore, they prefer to export jar lids. Fazlıoğlu added that 25% of their total business volume is export. Fazlıoğlu said that as Saribekir Packaging, a significant growth has been recorded in 40 years and SAP investment was made 4 years ago.

Motivations for Growth

Fazlıoğlu stated that there are 2 points in growth motivation. In the first case, the customer is forcing them to grow. To exemplify, the company started the production of aerosol bottles with 1 production line. However, the production line was expanded in order to compete with the rival company and to make the customer feel reassured. Another motivation for growth is their preference of investing in the company as a strategy which brings growth. She added that a sales and profitability target has been set in Saribekir Packaging and strategies have been developed in this direction.

Challenges from Growth

ACCESSING FINANCE: Fazlıoğlu said that accessing finance is one of the difficulties faced by SMEs while growing. She mentioned that cash flow is required to make transactions in banks and it can be difficult for an SME to manage cash flow. According to Fazlıoğlu, another difficulty is the problems encountered in family businesses. She mentioned the necessity of placing exit mechanisms in the relevant contracts in terms of the business continuity of the companies.

“

She mentioned that cash flow is required make any transaction in banks and it can be difficult for an SME to manage its cash flow.

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Key Success Factors

Fazlıođlu takes profitability as a measure of growth. She emphasized that the elements that ensure profitability are innovation and efficiency. According to Fazlıođlu, planning and measuring are very important for monitoring and ensuring efficiency.

“

According to Fazlıođlu, planning and control are very important for monitoring and ensuring efficiency.

”

Business leader importance

Fazlıođlu benefited greatly from her industry experience in identifying opportunities and developing strategies at Sarıbekir Packaging, which she established with her co-founder. Fazlıođlu said that Sarıbekir Packaging gives importance to providing the products to the customers on time, with the promised quality, and at a reasonable price.



Cooperation Partners:

According to Fazlıođlu, there are very few companies in the tin-packaging sector in Turkey and there is no cooperation or cluster formation. There are five medium-large companies, others are small businesses. There are instances where Sarıbekir Packaging sells its products to other small packaging firms. For example, they provide lids to small companies. In addition, Sarıbekir Packaging does not have any collaborative experience with a university so far. There is no R & D cooperation, but as the manufacturing takes place in Balıkesir, they hire engineers from Balıkesir University. The nature of their product line, steel being the major raw material, does not involve innovation. The machinery and raw material are imported. The suppliers are very large firms with strong R & D, so they do not feel the need. Sarıbekir explains, there has not been an opportunity for going into a dialogue with universities. There could be ways of cooperating, but this cooperation should not be 'tiring'. Sarıbekir views any topic related with efficiency, production systems could be a collaboration opportunity.

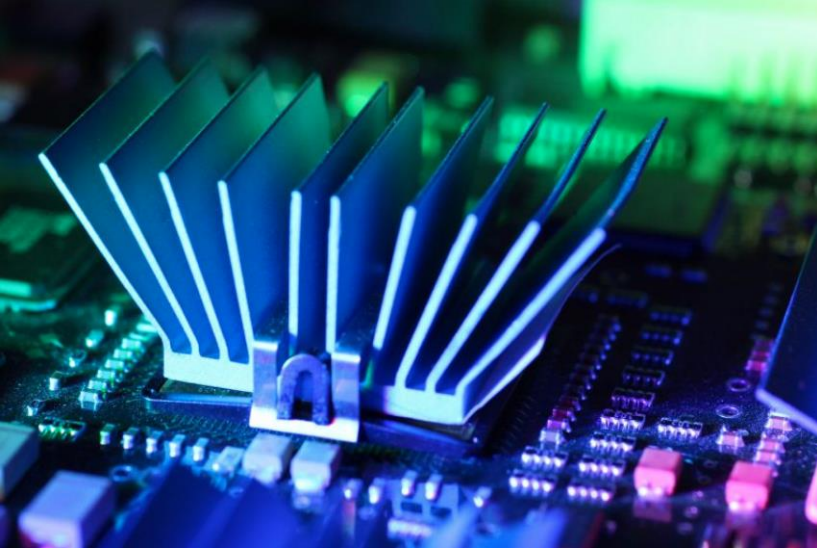
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There could be ways of cooperating, but this cooperation should not be 'tiring'. Sarıbekir views any topic in relation with efficiency,

”

Gözde Büyükacaroğlu

Chief Operating Officer (COO)
Vivosens Technology



COUNTRY
Turkey

CONTACT
<https://www.linkedin.com/company/vivosens/about/>

DATE OF INTERVIEW
10.05.2021

METHOD
Zoom Interview

LENGTH
45 Minutes

INTERVIEWED BY
Zeynep Erden Bayazit

The company's flagship product, Vivoo, is a wellness app that allows a person to check their care data via urine sticks. The results are shown in 8 parameters such as water consumption level, ketone level, PH level, various parameters related to the immune system, urinary tract infections, and how kidney and liver functions work. In addition, the app gives recommendations related to the results.

NOTE

HEI = Higher education institution | SME = Small and medium-sized enterprise

Understanding of Growth

Büyükacaroğlu thinks growth should be both organic and through acquisitions rather than having one trajectory. She stated that growth is something that happens every day for the company and added: "If the company is not growing, it is going backwards.". According to Büyükacaroğlu, it is possible to talk about growth in every sense, such as turnover, people, and operations.

Büyükacaroğlu likens founding a company to the birth of a child. "This child has different needs every day and you cannot predict these needs beforehand. When these needs come to the fore, we either need to recruit people to meet them, or we need to solve those problems, or we need to grow by partnering with people who can solve those problems.". She says that the growth of the company is evaluated in terms of turnover, which naturally means selling more products.

One of the examples of transformation is that when the company grows, the HR tools become digital. Especially with the pandemic process, it has become a necessity to ensure that a certain part of the operations can be continued in the digital environment. Since its founding the company has offered to do certain tests at home instead of a hospital, and we can clearly see the effect of digitalization in the Vivoo's value proposition.

Motivations for Growth

According to Büyükacaroğlu, a company must grow in order to sustain its life cycle, so for her it is a necessity, not an option.



Challenges for Growth

Turkish legal framework of business and regulations in the healthcare industry have been the major challenges. The tax system in Turkey can be given as an example of the first challenge. In this sense, it is very important for the government to offer or give incentives. The tax burden of the company is very high. In each recruitment process, the question “Which tax bracket falls on the employee and how much tax should the company pay to the state for the employee?” comes to the fore. The company's hiring decision is thus limited by these concerns and Büyükacaroğlu states that prioritizing by salary takes away the company's opportunity to recruit better talent. Regulations, which is also a factor related to the healthcare industry, was another challenge given as an example. Especially in startups, legal requirements are issues that should be well known. Although the legal department deals with such processes in large companies, the burden of this work is very high in startups. For example, when you build an e-commerce site, you need to know the fact that you need to pay for registration according to the regulations in Turkey.

“

Training should be taken on internationalization, and more should be learned about legislation and regulations regarding access to capital.

”

Main Needs

According to Büyükacaroğlu, entrepreneurial mindset, innovation management, and innovation in the business model are prominent competencies in order to achieve growth. According to Büyükacaroğlu, SMEs in Turkey are very afraid of going global and there are prejudices that need to be overcome in this regard. Büyükacaroğlu, who added that training was given at ITU about acting globally from the very beginning and they were encouraged in this regard, said that training should be taken on internationalization, and more should be learned about legislation and regulations regarding access to capital.

Vivosens consists of 15 white collars and 15 blue collars who have different needs. To exemplify, when there are part-time employees or interns, training is provided on use of the tools used in the company, cybersecurity, personal data protection law, and management of the process with the customers via peer learning. There is a longer training period for employees in the production part of the company. Although most of the training in the company is in the form of on-job training, off-the job training is also provided regularly on issues such as production technologies in Turkey, customs regulations, regulations of the Ministry of Healthcare.

Gözde and her co-founder participated in two acceleration programs where they learnt about business model, as well as how to go international. They, also, received mentoring during their incubation period. Access to capital, business model innovation and internationalization have been important themes for them.

Business leader importance

Both co-founders work with their networks and expand their networks.



Cooperation Partners

Since Vivosens Technology was founded in Yıldız Technical University Science Park and its founders were undergraduate students at the time, Vivosens has been in close contact with the university. Vivosens left Yıldız Science Park at the end of 2018 and moved to İTÜ Science Park (ARI I). They remained there until April 2020. The reason for leaving is that while the company was growing, the science park could not give the space to support this growth. Büyükacaroğlu stated that the training they received from İTÜ Çekirdek, the incubation center of İTÜ, was very valuable and contributed greatly to the creation of a commercial mindset besides the engineer mindset. Another contribution of İTÜ was its wide network. Thanks to the mentors they had at İTÜ Çekirdek, they had the opportunity to develop various partnerships. Vivosens is also part of the Istanbul Healthcare Industry Cluster, which is a cluster that includes stakeholders in the healthcare industry where training is given especially on regulations. Through this cluster, a project cooperation was realized with a company in Middle East Technical University Science Park. Through this project, Vivoo will also be delivered to the customers of the partnering company. Currently, the technological cooperation of the project is about to end, and after that, the focus will be on the marketing part. Vivosens also has a consultant pool to access experts, and there is a certain share allocated to that pool. Since it is difficult to recruit someone who is very qualified in a field as a salaried employee, they are offered a stock option in return for their efforts. In the United States, where the company has operations, there is a minimum rate for this stock. It obliges to allocate a share for the inclusion of such experts and the motivation of the company's employees.

According to Büyükacaroğlu, the biggest plus of operating in a university campus is access to students. Büyükacaroğlu states that as Vivosens is a software company and as İTÜ is one of the best STEM institutions in Turkey, they have recruited talents from İTÜ. The reason for the lack of cooperation other than this is their industry dependency. Büyükacaroğlu gives an example as: "If we were a company that developed more electronics, İTÜ's prototype labs would be very useful for us. But when it comes to healthcare, the scope of cooperation with İTÜ is very limited".

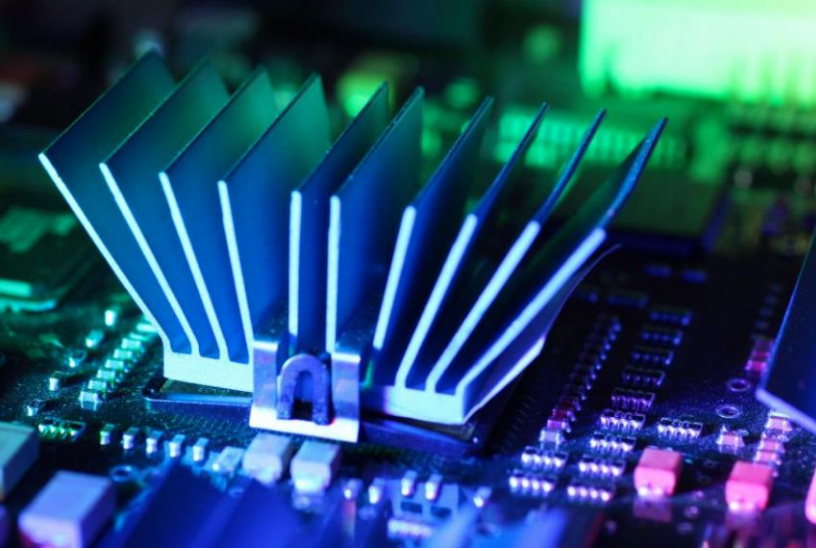
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They also benefit from infrastructure features such as İTÜ's high-speed internet. İTÜ's upload speeds are our machine learning saviour.

”

Kutay Güneştepe

Senior Expert
ITU Magnet



COUNTRY
Turkey

CONTACT
<https://itumagnet.com/>

DATE OF INTERVIEW
10.06.2021

METHOD
Zoom Interview

LENGTH
45 Minutes

INTERVIEWED BY
Zeynep Erden Bayazit

İTU Magnet (Advanced Stage Startup Space) was founded in 2017. In order to be accepted into İTU Magnet, a company must have a technology-oriented product, which is available in the marketplace (product-market fit), and is scalable with market share, export potential and trends. An expert from Venture Capital is also on the evaluation board during the admission process. In addition to these criteria, the applicant company should be subject to law 4691, which means the applicant company should carry out an R&D project, was added as a prerequisite in 2020.

Güneştepe is responsible for the acceptance of start-ups, their performance and sales follow-ups and exit processes.

NOTE

HEI = Higher education institution | SME = Small and medium-sized enterprise

Understanding of Growth

İTU Magnet continues to keep companies that do not grow much. Some of the companies within İTU Magnet evolved into a lifestyle business, and pivoted different products to different industries, albeit rarely. Those who have adopted the lifestyle business aim for organic growth.

According to Güneştepe, 70% of the companies in İTU Magnet have a growth-oriented mindset and they are developing strategies to increase the number of customers.

B2B oriented companies aim to expand their business network by participating in various demo days.

Motivations for Growth

While the focus of projects and customers predominates in those who have adopted the lifestyle business, the agenda of globalization is dominant in growth-oriented startups.



Challenges for Growth

SCARCITY OF RESOURCES: Güneştepe said that the biggest challenge of entrepreneurs is the scarcity of resources such as finance and talent. In this aspect, convincing VCs to invest, attracting and retaining talent comes to the fore. He states that one of the reasons why start-ups have difficulties in accessing the right human resource is the regulations. To be able to have an office at ITU Arı Teknokent and ITU Magnet, it is necessary to participate in the fingerprint scanning process every day, as part of science park regulations . Candidates and current employees do not want to accept the biometric screening prerequisite, as the work-from-home order has become widespread in the pandemic conditions.

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He states that one of the reasons why start-ups have difficulties in accessing the right human resource is the regulations.

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Key Success Factors

Companies within the scope of ITU Magnet achieve an average of 150% growth in 6 months. Revenue, R&D revenue, number of customers and number of employees stand out as key success factors for growth. The growth in the number of employees is not expected to be parallel to other growths. One of the criteria for successful growth is that the company can produce a product that can solve a problem and achieve a problem-solution fit.

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Business leader importance

According to Güneştepe, one of the unique abilities of the leader is her/his ability to identify and seize the opportunities in the market, thanks to her/his experience in the industry. As Güneştepe stated, in addition to the abilities that can provide product-market fit, it is also important to have a network to reach talent and customers.



Cooperation Partners:

As Güneştepe stated, approximately 60% of the companies within İTÜ Magnet cooperate with the university. These collaborations were formed either with the companies' own initiatives or with the encouragement of İTÜ Magnet. Güneştepe thinks that the interface structures at İTÜ are well-constructed in terms of cooperation.

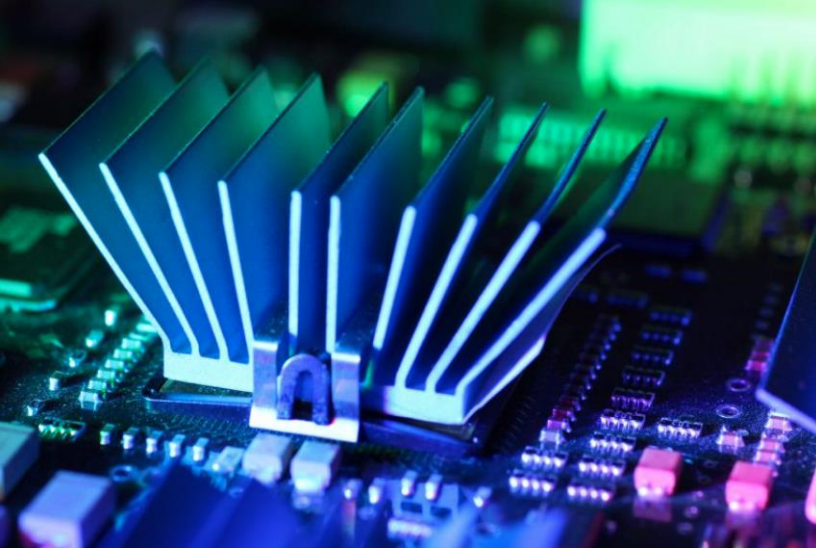
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Güneştepe thinks that the interface structures at İTÜ are well-constructed in terms of cooperation.

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Kürşad Arman

Manager/ Founder
KNS



COUNTRY
Turkey

CONTACT
<https://www.kns.com.tr/>

DATE OF INTERVIEW
26.05.2021

METHOD
Zoom Interview

LENGTH
45 Minutes

INTERVIEWED BY
Zeynep Erden Bayazit

Arman was the founder of KNS, which is a digital marketing company focused in shopping malls. In the journey of this company, he and his business partner in KNS established VenueX in 2017 when they realized KNS was not a scalable business and could not take quick action. In 2020, VenueX joined the Innogate (İTU international acceleration program) program. This firm digitizes commercial real estate maps, such as shopping malls and airports, and integrates them into major worldwide map applications. KNS is a major contributor to the VenueX company's funding.

NOTE

HEI = Higher education institution | SME = Small and medium-sized enterprise

Understanding of Growth

VenueX, as Arman stated, is a company that intends to grow globally. Even though investing in growth is similar to investing in traditional marketing, he claims that growth should be organic. It's a way of putting that we can get to the customer and end-user more rapidly. When money is spent on a strategy, it's traditionally called performance marketing, and he thinks growth is a different concept than performance marketing. Arman stated that they would grow in accordance with the market development strategy. Another strategy is their collaboration with their overseas resellers. They prioritize finding resellers who dominate the retail industry, who offer digital solutions to companies in this industry, understand the sales processes and sell cycles, and comprehend the decision-makers and how they decide. They implement an advancement strategy by paying their key partners a low retainer fee and a high success fee. He believes that geographical barriers to company growth exist. Therefore, he offered his advisory board position to a team with private equity experience who were already advising shopping malls and retailers in London. They wanted to be open to overseas opportunities by networking with people from abroad, and he benefited from his networking by offering a board position at VenueX to someone he had worked with at KNS as a growth strategy.

Motivations for Growth

When they realized that the growth of KNS was close to a halt, the company VenueX was founded with the motivation to grow. When they discovered how businesses in other countries could scale and realized how large they could become, they noticed they could do more and moved on.



Challenges for Growth

Once KNS reached a certain growth, they had difficulties in accessing and capitalizing on new opportunities as their business model were overly customized.



Key Success Factors

Kürşad stated that creating opportunities for growth is crucial. Marketing, business development, and understanding how to resonate with different businesses are key success factors for successful growth. He emphasized that understanding an opportunity stems from knowledge of one's own field and domain expertise.

Business leader importance

The VenueX company has a growth director, who has previous experience with companies with a similar business model that are scalable. They offered her company shares to include her in the company, and they wanted this director to employ and train someone to secure the business's continuity. Kürşad believes that a company leader should be able to detect and identify opportunities, as well as mobilize their networks.

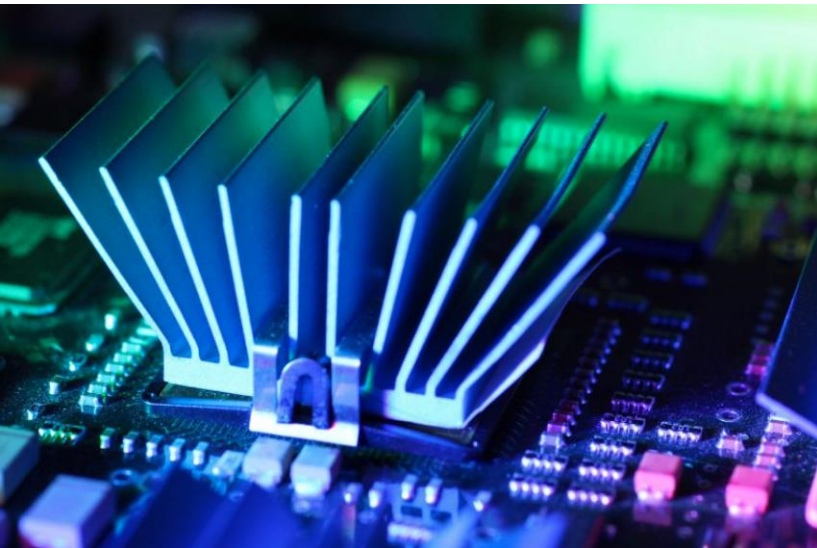
Cooperation with Universities

They have already participated in Innogate, which is the ITU ARI Science Park program. Innogate is an international online acceleration program that connects Turkish technology businesses with potential US clients, investors and business partners, to assist them with their expansion into worldwide markets through training, consulting and coaching. As Venuex, they also received consultancy from academicians for product development.

Universities, according to Arman, can provide jobs for SMEs and can also combine startups to create new business opportunities by bringing them all under one roof. Universities can categorize companies in their science parks based on their industries and then make startup proposals to companies in the market based on the category in which they are interested. Furthermore, universities can be clients for companies to test their demos, and if the prototype is successful, it can become an important reference for these companies.

Selma Bahçivanođlu

Manager, Incubation and Acceleration Programs
ITU Arı Science Park



COUNTRY
Turkey

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<https://www.ariteknokent.com.tr/en>

DATE OF INTERVIEW
15.06.2021

METHOD
Zoom Interview

LENGTH
45 Minutes

INTERVIEWED BY
Sebnem Burnaz

Selma Bahçivanođlu has her undergraduate degree in political science and international relations from Marmara University in 2007. Bahçivanođlu has her master's degree in Turkish modern history from Bođaziçi University in 2009. After working in various think-tanks funded by European Union programs, she started working at ITU Arı Science park in 2013. Bahçivanođlu is responsible for incubation and acceleration programs in ITU Çekirdek Incubation Center.

NOTE

HEI = Higher education institution | SME = Small and medium-sized enterprise

Understanding of Growth

Bahçivanoğlu said that there is a difference in growth perspective between startups with an incubation program experience and startups without such training. She encountered many SMEs advancing with traditional sales. She gave an example that includes SME founders who said, "I've been an SME for 8 years. After I've grown this much, do I really need training/mentoring? I'm the one who should be the mentor here". Firms like these have adopted a growth based more on revenue growth.

On the other hand, in startups, the focus is on investment-oriented growth with investors and sales.

Motivations for Growth

Bahçivanoğlu asserted that the startup founder's own vision feeds her/his motivation to grow. As a motivation for the growth of SMEs and their desire for internationalization, she also gives the fluctuating economy of Turkey as a motivation to internationalize.



Challenges for Growth

Bahçivanođlu stated that at the first stages, it is very difficult for a SME or a start-up to do business with a large company. She added that attracting and retaining the talent during the growth phase is also challenging for SMEs.

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...attracting and retaining the talent during the growth phase is also challenging for SMEs.

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Key Success Factors

CAPTURING GROWTH TRENDS: According to Bahçivanoğlu, capturing growth trends is one of the critical success factors for the growth of SMEs. It is also important for SME founders to have a coachable mindset that takes suggestions and absorbs the feedback s/he receives, and determines the strategy accordingly. In addition, she stated that the ability to manage talent is an important factor for successful growth. Lastly having a common goal among team members within SME is one of the critical factors for successful growth.

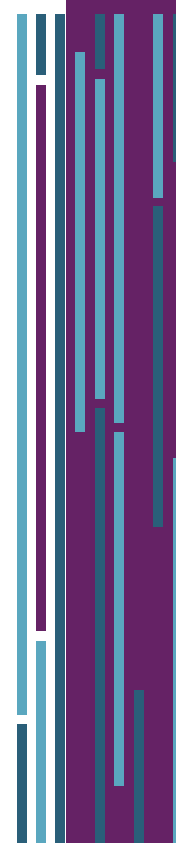
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...having a common goal among team members within SME is one of the critical factors for successful growth.

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Business leader importance

According to Bahçivanoğlu, if one of the founding partners has a certain business model, financial outlook or an MBA, and follows international trends, the startup can achieve healthy growth. Bahçivanoğlu gave the example of LA Software, one of the 3rd term participants of the Innogate program. Focusing on software solutions in supply chain management, LA Software covers 80% of the market in 11 years with a team of 40 people. Once the founders had realized that they have dominated the market and decided to apply to Innogate to open up to the international market. They found their first customer in Chicago 6 months after expanding to the US.



First collaboration:

Early 2021, Turkish Metal Unionists Association (MESS) brought Plug and Play to Turkey. This structure brings ventures from abroad for the digitalization of SMEs under the umbrella of MESS and matches the ventures from Turkey. In addition, Turkish Industry & Business Association (TÜSİAD) has a Digital Transformation Program in Industry, in which the technology user connects with the technology supplier. Bahçivanoğlu stated that there are startups within ITU Arı Science park that matched with leading companies in Turkey through this program. To exemplify, Bahçivanoğlu also stated that the Istanbul Chamber of Industry's goal of matching startups operating in the field of sustainability with member SMEs. Bahçivanoğlu said that especially technology startups are very enthusiastic in collaborating with universities in terms of academic consulting.

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To exemplify, Bahçivanoğlu also stated that the Istanbul Chamber of Industry's goal of matching startups operating in the field of sustainability with member SMEs.

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