

Kehua Data Co., Ltd. Recognized for

2021

**Competitive Strategy
Innovation and Leadership**

Global UPS Industry

Excellence in Best Practices



Best Practices Criteria for World-Class Performance

Frost & Sullivan applies a rigorous analytical process to evaluate multiple nominees for each award category before determining the final award recipient. The process involves a detailed evaluation of best practices criteria across two dimensions for each nominated company. KEHUA excels in many of the criteria in the UPS space.

AWARD CRITERIA	
<i>Strategy Innovation</i>	<i>Customer Impact</i>
Strategy Effectiveness	Price/Performance Value
Strategy Execution	Customer Purchase Experience
Competitive Differentiation	Customer Ownership Experience
Executive Team Alignment	Customer Service Experience
Stakeholder Integration	Brand Equity

Excellent Strategy Effectiveness

One of the top qualities that Frost & Sullivan uncovered about KEHUA is its rock solid determination and tireless quest for technology innovation and excellence. Its comprehensive product portfolio represents the next generation of UPS and data centre solutions that are not only truly end-to-end, but also state of the art future ready solution set. When it comes to anticipating future market needs and addressing unmet needs, KEHUA is fast emerging as a highly promising company to look out for. The accomplishments and milestones the company has achieved in the past three years are highly impressive.

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Research Director**

The core strength of KEHUA is derived from six strategic pillars. The first one is high stability, which is backed by its financial strength, sustainable growth and strong cash flow. This is followed by excellence in R&D which is characterized by its industry leading technology expertise, extensive intellectual property and a wealth of highly skilled and talented R&D staff. The next strategic pillar is its robust supply chain, through which the company not only achieves swift response times to market, but is also able to maximize efficiency and optimize production lines. Industry leading service offering is the next pillar of strength for KEHUA; this

is reinforced by its highly skilled and trained service team that is capable of offering top notch on-site support. The company's laser sharp focus on quality forms the next pillar of strength; it is also one of the most important one that makes the company stand out. Last but not least, KEHUA's manufacturing excellence is the final pillar of strength; it leverages top of the line facilities with ample production capacity and is able to achieve swift deliveries through flexible and agile scheduling best practices. One of the key strategic initiatives KEHUA has undertaken to position itself for short-term and long-term future challenges and growth is "Intelligent Power – Comprehensive Management". The effectiveness of this strategy is guided by its exclusive customer centric approach and is driven by its deep rooted understanding of various application scenarios at its customer sites and is complemented by its thorough knowledge on customer needs and pain points. The other aspect driving the success of this strategy is the undivided focus the company places on its core power conversion technology and amalgamating it with its supply chain best practices.

Emphasis on Strategy Execution

Frost & Sullivan believes that KEHUA's multi-dimensional approach to implementing best practices will further accelerate it to a leadership position in the market. One of the key aspects that drive success in this regard is its operational best practices that allow for successful execution of competitive strategies. In terms of overall market strategy, KEHUA has achieved rapid expansion in data centres, rail transit and other related segments. It was able to achieve this by studying and analyzing customer application scenarios, focusing on the core products such as modular UPS, analyzing problems from the overall system perspective (holistic approach), and more importantly, approaching all this with an unwavering goal of creating value for the customer. In order to address the ongoing structural changes in the market and increased competition, KEHUA recently revamped and refined its management and market strategy focusing on four key aspects – product development, regional market team building, supply chain management, and process optimization.

In terms of product development, some of the key measures implemented by KEHUA that significantly boosted its operational efficiency are as follows: introduced IPD process, improved product organization, identified the key responsible departments for product development and project approval, established product line expert team, formulated workable incentive system, and successfully promoted market, R&D, supply chain and other inter-department synergies. It is noteworthy that over the past two to three years KEHUA has made remarkable progress in terms of efficiency of R&D projects and effectiveness of R&D investment. As a result, it has been able to develop products that are more in line with the market demand, while also being able to reduce manufacturing costs. The recent launch of its MR33 Series Modular UPS is a perfect testament to this.

Unique Competitive Differentiation

KEHUA's futuristic approach towards product development has empowered the company with a unique set of competitive differentiators and has made it a promising contender in this highly competitive industry. The company's ever increasing focus on technology and innovation has been instrumental in creating a niche for itself; it also plays a crucial role in propelling the company's growth and penetration in international markets. KEHUA's technology and innovation excellence is primarily driven by its ability

to envisage visionary scenarios by constantly analyzing mega trends and creating revolutionary solutions to address those developments. With its expertise in tracking and studying mega trends, KEHUA was able to not only anticipate the advent of path breaking events that would change the landscape of the critical power industry, but it also diligently capitalized on them. Key developments in this space include deployment of significant resources in in product design, user experience, application scenario analysis, etc. and strategic investment in cutting-edge technologies such as artificial intelligence (AI) big data and IoT. Furthermore, the company has made significant strides in energy feedback technology for rail transit, nuclear island level power protection technology, equipment status monitoring and energy-saving technologies for data centres.

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Frost & Sullivan finds KEHUA’s perseverance and commitment towards developing AI and IoT based intelligent features and functionalities highly commendable. Some fine examples of such features are AI based intelligence fault diagnosis and intelligent dust remover, IoT based monitoring platform which enables seamless management of an entire data centre and so on. The other intriguing functionality the company has developed is the automated fault detection through image identification and voice identification in data centres which are carried out by robots. KEHUA’s success in creating these unique competitive differentiators is

strongly underpinned by its vast technology know how in the power conversion industry which it has accumulated over the past few decades. On the other hand, its ability to resonate with its customers and gain a deeper understanding of various application scenarios and related un-met needs has been a major success factor for the company.

One of the perfect testament to demonstrate the company’s technology excellence is its recent launch of the 125kW high density power module in its modular UPS product family. This product not only offers reliability and performance of the highest magnitude, but is also loaded with value added features and functionalities; this is enabled by cutting edge technology and state of the art design elements. For instance, it features a complementary symmetrical design, which ensures balanced heat dissipation between the modules and enhances the overall stability of the system. On the other hand, by leveraging its patented magnetic cube technology, it is able to reduce magnetic core loss by 20% when compared to traditional designs.

Furthermore, Kehua’s flair in integrating this product with AI technology further elevates the level of sophistication it brings to the table. Key highlights include, real time analysis and reporting of the equipment’s health status; offering pre-warnings for potential risks, potential safety hazards, under voltage batteries; fault trace management with swift and accurate root cause analysis capabilities; and more importantly its ability to automatically and seamlessly move a faulty power module to offline status is impressive. Other noteworthy aspects that stand out in this product include smart integrated

display that allows the machine to view the operating parameters of multiple devices, and its smart files management for ease of maintenance.

Outstanding Price/Performance Value

KEHUA's vast technology know-how and manufacturing expertise in power electronics has allowed it to create an industry leading UPS product family, specifically designed to enhance customer value multi fold and strike a perfect balance between price / performance value. Frost & Sullivan finds KEHUA's manufacturing excellence second to none. It leverages cutting edge tools and processes in all its manufacturing plants and incorporates a wide array of supply chain and procurement best practices, thereby offering the best value to customers at a highly competitive price compared to similar offerings in the market. It offers an industry leading UPS portfolio that addresses the entire breadth of customer needs and applications ranging from commercial facilities through to factories, industries, nuclear facilities, utilities, data centres and so on. It has developed products at a variety of price points and functionality levels, specifically tailored to different application scenarios. The company ensures quality and reliability of the highest magnitude and offers uncompromised stability in all its UPS products. KEHUA ensures high levels of product quality by employing a unique production system called KPS (KEHUA Production System) and top notch quality control system; it is further reinforced by a series of cutting edge testing processes. It is able to further enhance price/performance value by optimizing aspects such as availability (for customized products), packaging, performance, ease of use, maintenance and overall life-cycle costs. In essence, KEHUA's meticulous attention to detail and high level of emphasis on five key aspects make its value proposition highly attractive; these are quality, efficiency, cost effectiveness, technology and long term orientation.

Industry Leading Customer Ownership Experience

It is Frost & Sullivan's finding that KEHUA offers industry leading customer ownership experience throughout the life cycle of its products. There are two vital factors that drive superior customer ownership experience; product performance and client relationship. KEHUA excels at both. The company has been highly successful at fostering a tight-knit relationship with its key customers, it achieves by continually offering a positive experience; this has resulted in a lasting bond that allows KEHUA to grow with their customers. This is evident from its constantly increasing list of orders, positive customer testimonials and rapid market penetration.

The back bone of KEHUA's superior product performance is its R&D strength and extensive intellectual property (IP) in the field of power electronics. In 2019, the company not only established 96 new R&D projects but also completed these projects successfully and reaped great results during the same year. In terms of intellectual property rights, KEHUA completed 238 patent applications (128 invention patents, 87 utility model patents, 23 appearance patents) and 31 software copyrights. As of December 2019, the company had 133 invention patents, 399 utility model patents and 179 appearance patents, which makes it a total of 711 valid authorized patents. On top of this, it also has 275 software copyrights. By leveraging such an extensive IP and R&D capabilities, the company has been able to introduce unique, cutting edge product features and functionalities in its UPS products in order to offer superior customer ownership experience. Some fine examples include Fault Trace Management (FTM)

which offers seamless failure analysis, intelligent battery charging system to prolong the battery life, intelligent battery management that enables swift power supply recovery, intelligent battery monitoring system which allows smart status diagnosis, event logs recording, real time parameter monitoring and so on.

Brand Equity

KEHUA's brand name is synonymous with technology excellence, innovation, and, most importantly, customer focus. The company's product positioning strategy and the effectiveness of its customer centric approach towards product development has played a vital role in enhancing its brand image globally. The company has managed to generate a sense of excitement and anticipation among its customers who are trying to gain a competitive edge by engaging with cutting edge, futuristic technologies. With vast experience and know how in the UPS market, KEHUA is on the right path to gaining a reputation of an iconic brand in the industry. This is evident from its ever expanding global customer base, significant market expansion, enhanced industry influence, and rapid growth in focused segments. In the field of high-end power supply solutions, KEHUA has achieved substantial growth in vertical segments such as transportation, petrochemical industry and so on. It is noteworthy that KEHUA's solutions have been applied in over 100 subway lines throughout 40+ cities and the company accounts for a big chunk of the market share for critical power in rail transportation in China. KEHUA has also been actively increasing its global market share in the transportation and petrochemical industries. Some fine examples to demonstrate its excellence in this space include – deployment of solutions in Beijing Capital Airport Terminal 3, which is the largest single terminal in the world and KEHUA solutions being adopted by Brunei Hengyi PMB project, which is world's largest petrochemical industry base.

KEHUA's tremendous effort towards building and strengthening brand equity is also clearly evident in the company's year on year revenue growth (exceedingly higher than average market growth rate) and other key financial metrics such as profit margin, cash flow increase and so on. Frost & Sullivan believes that KEHUA is uniquely positioned to further strengthen its position and emerge as one of the leading players in this highly competitive market in the coming years.

Conclusion

The driving force behind KEHUA's success is its steadfast perseverance and commitment to pursuing its vision of creating cutting edge UPS solutions that not only address customers' current needs, but also evolving future needs. With its vast wealth of technology know how and constant innovations targeted at customer value enhancement, KEHUA is expected to rapidly gain prominence in the market and achieve high penetration levels in international markets over the coming years.

With its strong overall performance, KEHUA earns Frost & Sullivan's 2021 Competitive Strategy Innovation and Leadership Award in the global UPS industry.

What You Need to Know about the Competitive Strategy Leadership Recognition

Frost & Sullivan's Competitive Strategy Leadership Award recognizes the company with a stand-out approach to achieving top-line growth and a superior customer experience.

Best Practices Award Analysis

For the Competitive Strategy Leadership Award, Frost & Sullivan analysts independently evaluated the criteria listed below.

Strategy Innovation

Strategy Effectiveness: Effective strategy balances short-term performance needs with long-term aspirations and overall company vision

Strategy Execution: Company strategy utilizes Best Practices to support consistent and efficient processes

Competitive Differentiation: Solutions or products articulate and display unique competitive advantages

Executive Team Alignment: Executive team focuses on staying ahead of key competitors via a unified execution of its organization's mission, vision, and strategy

Stakeholder Integration: Company strategy reflects the needs or circumstances of all industry stakeholders, including competitors, customers, investors, and employees

Customer Impact

Price/Performance Value: Products or services provide the best value for the price compared to similar market offerings

Customer Purchase Experience: Quality of the purchase experience assures customers that they are buying the optimal solution for addressing their unique needs and constraints

Customer Ownership Experience: Customers proudly own the company's product or service and have a positive experience throughout the life of the product or service

Customer Service Experience: Customer service is accessible, fast, stress-free, and high quality

Brand Equity: Customers perceive the brand positively and exhibit high brand loyalty

