Must have or nice to have

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Abstract

Purpose – This paper aims to provide an opportunity to study organization buying behavior, specifically buying and selling in the B2B context. The case demonstrates the need to understand the expectations of the buyer's decision-making unit and the challenges involved in acquiring and retaining customers based on the articulated value proposition of the product. The case also provides an opportunity to explore the critical issues related to an organization's buying process, while emphasizing on the importance of customer relationship management and the challenges involved in sales conversion.

Design/methodology/approach – The case is a filed-based study that aims to provide insight on differences between buying and selling in B2B & B2C and an understanding on customer value proposition in B2B buying context.

Findings – The case provides a comprehensive overview on the key role of decision-making units and decision-making process in B2B context.

Originality/value – This is an India-specific field-based case study on B2B selling situation. The case provides a framework on salesperson B2B selling approach, techniques and skills in view of the changing business selling environment in the age of technologically advanced digital world.

Keywords Value proposition, Customer management, Decision making unit, Organisation buying

Paper type Case study

Introduction

Organizational buying behavior is a complex human decision-making process driven not only by logic and facts, but also by emotions (Bagozzi, 2006). Hence, creating a strong personal connection through salesperson interactions (Singh and Venugopal, 2015) is integral to the organizational buying process (Kemp *et al.*, 2018). Customer solutions in business-to-business (B2B) selling require the sales person to have deeper customer insights (Chicksand and Rehme, 2018; Ulaga and Reinartz, 2011). They also require a fundamental shift in focus from quality and price to total cost of ownership (Monczka *et al.*, 2016; Sheth *et al.*, 2009; Snelgrove and Stensson, 2017; Vitasek, 2017a, 2017b), which, in turn, demands that sales people work with focus on long-term customer development (Dixon *et al.*, 2001; Timo *et al.*, 2018). In this study, we discuss the concept of value and the drivers of value appropriation in business relationships (Chicksand and Rehme, 2018). Customer value is expressed as the monetary benefits accrued which improve the buyer's revenue (Anderson and Narus, 1998; Brandenburger and Stuart, 1996). It also includes sacrifices such as total transaction costs (Williamson, 1975; Nordigarden *et al.*, 2014), which include the price paid for goods and services, initial search costs, learning costs and switching costs (Chicksand and Rehme, 2018). The case provides a framework for a sales person's B2B selling approach, the techniques and skills (Agnihotri *et al.*, 2015; Hunter and Panagopoulos, 2015; Marshall *et al.*, 2012; Moncrief *et al.*, 2015; Hoar *et al.*, 2015) to adopt in view of the changing B2B selling environment in the age of ever-evolving technological advancements (Joon-Hee, 2017).

Organization buying behavior: a case study

Ajay Sharma was the South Zone, Sales Engineer with ATP Consultants, a Bangalore-based company that was in the business of selling the WATMIZER system, an ultraviolet system used in centrally air-conditioned environments. Even after a few months of his joining, he was unable to make a sale. There were times when the prospects showed interest in the product, but they either delayed the purchase decision or did not buy at all. He was worried about his performance, or lack of it, in selling the WATMIZER system. In fact, he had not achieved a single sale on his own since joining the company. The only sale he had achieved was owing to the efforts of Mr. Vijay Singh and Ms. Meeta Singh, the Directors of the company. In March 2016, ATP Consultants convened a meeting to analyze Ajay's performance. During the

This case has indexed all exhibits to maintain the confidentiality. The case is intended to be used as the basis for class discussion rather than to illustrate either effective or ineffective handling of a management situation. The authors have disguised certain names and other identifying information to protect confidentiality.

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meeting, he had to explain why he had been unable to achieve his sales target. Needless to say, Ajay was worried and looking for options that could help him generate and convert leads into sales. He wanted to discuss these options with Vijay to seek his support and approval. He had only one week's time before that meeting to explore his options and create a presentation for the directors.

The company AEROPURE: manufacturers of the WATMIZER system

AEROPURE, an Indian company in operation since 2000, was based in Pune. The company manufactured the WATMIZER system, which was an ultraviolet system used in centrally air-conditioned environments. They had customers for their product in the domestic market as well as overseas in countries such as Africa, Singapore, Malaysia, US and the Middle East. In early 2000, AEROPURE was the only manufacturer of ultraviolet (UV) lamps in India, which was a major component of the WATMIZER system. Their manufacturing unit was located in a four-acre plot in an export zone at Chakan, Pune. In the past, AEROPURE and their competitors were importing ultraviolet lamps from Terilair (USA), TUK (Canada) or the UK. These lamps available in China and India were of inferior grade and unsuitable for the ultraviolet germicidal irradiation (UVGI) application required to manufacture the WATMIZER system. AEROPURE began manufacturing its UV lamps, 80 per cent of which they exported to the USA. The company had received several awards including DSK Energy award 2011 for outstanding contribution to energy saving; the ACREX award; and the GREEN CERTIFICATION award. Besides, it has also been awarded the ISO (International Organization for Standardization) 9001 & 14000 certifications. AEROPURE manufactured purification systems for effluent water and drinking water.

ATP consultants was a Bangalore-based company with 10 years of experience in recruitment, training, marketing and sales consultancy. In 2015, they partnered with AEROPURE Ltd to sell their WATMIZER system. AEROPURE Ltd had similarly partnered with two other companies to market its product.

The WATMIZER system

The WATMIZER system was an ultraviolet system, which was used in centrally air-conditioned environments (HVAC Systems – heating, ventilation and air conditioning systems) to save energy and improve indoor air quality by killing bacteria and germs. The product worked on a principle similar to that of using UV lamps in water purifiers to disinfect water and make it safe for drinking. In enclosed centrally air-conditioned spaces, there were high chances of bacteria, germs, mold and fungi settling and growing in the coils and fins of the cooling coil block of the air handling unit (AHU). WATMIZER was a system of UV lamps mounted on an aluminum frame and placed within the air handling units. The UV rays acted on the cooling coil and destroyed germs, bacteria, mold and fungi, thus keeping it clean. Besides reducing the level of harmful bacteria and viruses in the environment, the system also improved energy transfer efficiency and helped to save power. Air handling units were installed in centrally air-conditioned premises to remove dust and cool the used air within the premises. These AHUs sucked out used air (normally warmer air) from work spaces through the return air ducts, releasing only 10 per cent to the atmosphere and recycling 90 per cent through the air handling units. In the air handling unit, the air was made to pass through a filter and cooling coil. The cooling coil was constructed of tubes carrying cold water and fins to direct the flowing air in a way to maximize contact with the cooling water tubes. After passing through the cooling coil, the cooled air was pushed out with the help of a blower and returned to the work spaces through other air ducts. Refer to Appendix 1 for an air-conditioning system and Appendix 2 for how a typical air handling unit works.

UV light is a component of an electromagnetic spectrum, loosely referred to as light. UV rays are emitted between the wavelengths of 100 and 400 nM (nanometer). At the wavelength of 254 nM, UV rays have the unique property of killing germs, viruses, bacteria and micro-organisms that constitute harmful mold and fungi. This very valuable property of the ultraviolet rays at 254 nM was discovered before the 1900s. Refer to Appendix 3 for UV lights and Appendix 4 for "before" and "after" of cooling in an air handling unit, where the WATMIZER system had been installed and was operative for the last three months.

Centrally air-conditioned system

In a centrally air conditioned system, air from the work spaces was sucked back through "return-air-ducts" and passed through the air handling units. As the air entered the air handling unit, larger particles were filtered out by a filter. The air then passed through the cooling coil where cold water flowed through the pipes. The air that flowed over these cooling coils cooled because of heat transfer between the cold water in the tube and the air outside. The air was then sent back to the work spaces through a different duct by the action of a blower. The air, which was recycled (90 per cent), contained micro-dust and micro-moisture. This micro-dust and micro-moisture settled on the pipes and fins of the cooling coil because they were a few degrees cooler than the ambient air. Viruses, bacteria, germs, fungi and mold settled on this surface and formed colonies on this layer of dust. The "dust", which was actually a mixture of micro-dust, micro-moisture and billions of bacteria, fungi, virus, formed a covering on the fins and tubes in the cooling coil and reduced the efficiency of heat transfer between air and the cooling water. As a result, extra power was consumed to achieve the required level of cooling. These viruses, bacteria, molds, spores, fungus, etc. settled and grew exponentially inside the damp and dark areas of the cooling coil and then spread all over the buildings through the air conditioning systems, thus making the indoor environment infectious, unhealthy and unsafe to breathe.[1] This constantly increased the total bacterial and fungal count.

How the WATMIZER system works

The WATMIZER system was an assembly of an aluminum frame with reflector profiles across the vertical arms of the frame, which was fixed to the floor of the air handling unit. UV lamps were fitted on the reflectors. The WATMIZER system faced the cooling coil and was about 6 to 8 inches away from it. The ultraviolet beam, which was directed at the face of the cooling coil, destroyed the sticky germs, viruses, bacteria, fungi and mold. Thus, the sticky matter, which bound the dust,

moisture and germs, got destroyed and the whole integral mass collapsed into the drain pan for clearance. In a few weeks, the entire cooling coil sparkled and became shiny. As a result of this cleaning, two things happened. The obstruction in the coils and fins was removed, thereby improving the efficiency of the heat transfer and resulting in the saving of energy. The virus and bacteria were destroyed at the deoxyribonucleic acid (DNA) level, and had no place to settle and grow. Thereby, there was significant improvement in the indoor air quality (refer to Appendix 5).

Need for the WATMIZER system

In traditional set-ups, as part of regular maintenance, the cooling coil blocks were supposed to be cleaned periodically. The normal interval for cleaning was fixed for every three months. This cleaning was done using a forced jet of water and chemicals to dissolve the "dust". This procedure had several shortcomings. It was a cumbersome process as it required a shutdown of the system, hence it was usually skipped. The maintenance team just cleaned the filter and ignored the cooling coil, as a result got more contaminated. When cleaning was sporadically attempted, the customary methods of water jet and chemicals could only clean to some extent from the surface while most of the coil and fins remained contaminated. Most of the cooling coils continued to be in a state of sub-optimal performance. The WATMIZER system was a superior and effective method for coil cleaning and thus resulted in saving energy and improving indoor air quality. UVC rays were a highly effective method of killing germs without the use of any harsh methods like chemical cleaning or steam injections. The use of UV rays was a safe, environment-friendly and the most efficient method for removing mold and bacteria from coils and the drain pan surface.[2] The system had several benefits. It eliminated the growth of mold and mildew on cooling coils resulting in improved heat transfer between the chilled water in coils and air. It improved air flow through coils and eliminated further depositions of dust on them. This reduced the amount of energy consumed in a building by 10-15 per cent and improved indoor air quality by up to 70 per cent. It prevented periodic cleaning of coils, thus significantly reducing annual maintenance costs (AMC) by over 50 per cent and extending the life of the equipment by 25 per cent. The initial set-up cost was low with payback as low as 15 months. The system was compatible with any new and existing heating ventilation and air condition systems.

Customer

The typical customers of the WATMIZER system were hospitals, pharmaceutical manufacturers, hotels and large companies that had the facility of a centrally air-conditioned system. Customers were segmented depending on their concern for environment, health and safety (EHS) and interest to provide their employees a clean working environment. Progressive companies and multinationals belonged to this segment as compared to smaller still-to-evolve companies. Customers were also segmented based on the time when they purchased the WATMIZER system, either at the initial stage of the construction, wherein the WATMIZER system was a part of the original air handling unit equipment or at a later date, which was technically referred to as a retrofit.

Buying process

The product was meant for business and commercial setups. The purchase of the product was perceived to be a complex decision; hence, several departments of a company were involved in the decision-making process. A typical decision-making unit (DMU) involved the following departments:

- *Facilities*: This department took care of running of the buildings including heating, ventilation and air conditioning systems in which the WATMIZER system was fitted. This department was either staffed with company personnel or outsourced to a facilities company such as Jones Lang Lasalle or Cushman & Wakefield. The department was mostly managed by engineers who were responsible for heating, ventilation and air-conditioning equipment, electricals, etc.
- *Project*: This department was involved in the setting up of buildings. Once it was set-up, the facilities department took care of the day-to-day operation and maintenance.
- *Environment, health and safety*: This department, particularly in large multinationals, ensured a healthy environment for their employees by providing a pollution-free work environment.
- *Finance*: This department was responsible for the viability of an investment.
- *Procurement*: This department was responsible to audit the quotations, negotiate and select the vendor based on the buying decision.
- *Chief operating officer*: The final person responsible for approving and signing the contract.
- *Heating, ventilation and air conditioning consultant*: In the project stage when the facility was constructed, a client would employ a heating, ventilation and air conditioning consultant firm to design the heating, ventilation and air conditioning system and recommend the vendors for different components like chillers, air handling units, ducting systems, electrical, etc.
- *Air handling unit manufacturer*: Vendor who manufactured the air handling unit and sold to the client.

Competition

Terilair (USA) and TUK (Canada) were the two companies that manufactured UV lamps of the required grade. Terilair had business association with Redman, and TUK with Tapman for selling UGI systems in India. Redman and Tapman had stopped promoting UGI systems as they had broken off their relations with the supplier companies. The reason was that Redman and Tapman were huge companies with multiple divisions and they found the potential of UGI system too small to justify their efforts or return. Dustman, a big player in water purification till now was not very much interested in the use of UV lamps for air purification though they did supply a WATMIZER-equivalent system imported from a British manufacturer of UV lamps to few customers. Refer to Appendix 6 for price of the system and that of the competitors system that was imported. By 2016, there were no

companies in India aggressively selling an UGI system for heating, ventilation and air conditioning systems. Until now, Dustman was not interested; however, seeing the future business potential, it changed its perspective and became a competitor to AEROPURE.

Client's satisfaction to date

Till date, client satisfaction has been impressive. For Sonora Software, for instance, the payback was 11 months and indoor air quality improvement over 90 per cent. For Shalaka Constructions, the payback was 15 months and indoor air quality improvement 83 per cent. Absenteeism at PELL Systems dropped by 50 per cent. Savings were accrued through reduced downtime during maintenance and reduced annual maintenance costs as the cooling coil did not require any cleaning. ATP Consultants conducted proof of concept (PoC) tests in many companies to establish the evidence of savings and improvement in indoor air quality between 11 and 29 per cent. The drop in total bacterial count and fungal count was in excess of 70 per cent and more than 50 per cent, respectively. In most places, the payback on investment was around 15 to 24 months. Refer to Appendix 7 for PoC test, and Appendices 8, 9 and 10.

Ajay Sharma, the sales person

Ajay was an engineer and had previous experience of working in a company, which dealt with the assembling and selling of air handling units. Earlier, he had worked for five years in another company that sold air conditioning systems. ATP Consultants had found him suitable for their job profile and appointed him with a salary package 25 per cent higher than his contemporaries in the market. Ajay joined ATP Consultants in April 2015. He reported to Business Development Director, Sharmishta Dey. His job responsibilities included identifying prospects, developing business presentations, managing objections and closing sales. He went through an intense product and sales training for the WATMIZER business.

Dilemma

The client's officials of facilities and the finance departments were excited by the WATMIZER system; yet, they were reluctant to make an investment in those cases, where the PoC had demonstrated energy savings and indoor air quality improvement. In March 2016, Mr. Vijay, Director, ATP Consultants, convened a meeting to analyze Ajay's sales performance. He was asked to explain the reason for not being able to achieve his sales target. Ajay wanted to explore a few options that would help him generate demands and convert sales. He wanted to discuss those options with Vijay to seek his support and approval. Ajay was left with only one week's time for making his presentation before the directors of ATP.

First, ATP consultants focused on retrofit prospects because it seemed easier to prove energy savings and improvement of indoor air quality through PoC tests. Some customers, who were progressive and able to afford the system, allotted certain amount of their capital expenditure for such novel technology. Others, who were strapped for capital expenditure (CAPEX), preferred the leasing option. Hence Ajay felt the need to identify and approach the right prospects to develop a thorough understanding on customer management to achieve both customer acquisition and retention.

Second, few prospective clients wanted a PoC test that was a pilot execution of the system to prove energy saving and indoor air quality improvement at their own premises. This was because they were unwilling to rely on testimonies of other customers. While few customers were ready to invest in the PoC test but were reluctant to make the CAPEX investment required for the test. Ajay felt the need to assess the value worth of the client and came up with options like arrange for a PoC demo at the clients' premises at a 50 per cent discount or a free demonstration offer based on the agreement of some assured sales order from the clients or facilitate visits of interested clients to the company, in which the PoC test demo was to be carried out. Alternatively, he proposed the use of a digital platform as a cost-effective method to project the value proposition of products/services to clients.

Third, each member of the decision-making unit had their own unique needs and concerns. Hence, the sales pitch had to, accordingly, address and convince each member by offering unique selling proposition (USP).

Ajay was sure that Vijay would be convinced of the above-stated options to help generate demand for sales conversion.

Notes

1 www.invirotech.com/ (accessed 1 January 2017).

2 www.invirotech.com/ (accessed on 1 January 2017).

References

Agnihotri, R., Dingus, R., Hu, M.Y. and Krush, M.T. (2015), "Social media: influencing customer satisfaction in B2B sales", *Industrial Marketing Management*, Vol. 53, pp. 172-180.

Anderson, J.C. and Narus, J.A. (1998), "Business marketing: understand what customers value", *Harvard Business Review*, Vol. 76 No. 6, pp. 53-65.

Bagozzi, R. (2006), "The role of social and self-conscious emotions in the regulation of business-to-business relationships in salesperson-customer interactions", *Journal of Business & Industrial Marketing*, Vol. 21 No. 7, pp. 453-456.

Brandenburger, A.M. and Stuart, H.W. (1996), "Value-based business strategy", *Journal of Economics & Management Strategy*, Vol. 5 No. 1, pp. 5-24.

Chicksand, D. and Rehme, J. (2018), "Total value in business relationships: exploring the link between power and value appropriation", *Journal of Business & Industrial Marketing*, Vol. 33 No. 2, pp. 174-182.

Dixon, A.L., Spiro, R.L. and Jamil, M. (2001), "Successful and unsuccessful sales calls: measuring salesperson attributions and behavioral intentions", *Journal of Marketing*, Vol. 65 No. 3, pp. 64-78.

Kemp, E.A., Borders, A.L., Anaza, N.A. and Johnston, W.J. (2018), "The heart in organizational buying: marketers' understanding of emotions and decision-making of buyers", *Journal of Business & Industrial Marketing*, Vol. 33 No. 1, pp. 19-28.

Hoar, A., Bernoff, J., Johnson, C., Evans, P.F., Wu, S., Naparstek, L., Milender, J., Wizdo, L., VanBoskirk, S., McQuivey, J.L. and O'Neill, P. (2015), "Death of a (B2B) salesman", available at: www.forrester.com/report/Death_Of_A_B2B_Salesman/-/E-RES122288 (accessed 30 July 2016).

Hunter, G.K. and Panagopoulos, N.G. (2015), "Commitment to technological change, sales force intelligence norms, and salesperson key outcomes", *Industrial Marketing Management*, Vol. 50, pp. 162-179.

Joon-Hee, O. (2017), "A conceptual framework for successful salesperson role change management", *Journal of Business & Industrial Marketing*, Vol. 32 No. 8, pp. 1136-1143.

Marshall, G.W., Moncrief, W.C., Rudd, J.M. and Lee, N. (2012), "Revolution in sales: the impact of social media and related technology on the selling environment", *Journal of Personal Selling and Sales Management*, Vol. 32 No. 3, pp. 349-363.

Moncrief, W.C., Marshall, G.W. and Rudd, J.M. (2015), "Social media and related technology: drivers of change in managing the contemporary sales force", *Business Horizons*, Vol. 58 No. 1, pp. 45-55.

Monczka, R.M., Handfield, R.B., Giunipero, L.C. and Patterson, J.L. (2016), *Purchasing and Supply Chain Management*, 6th edition, Cengage Learning, Boston, MA.

Nordigarden, D., Rehme, J., Brege, S., Chicksand, D. and Walker, H. (2014), "Outsourcing decisions – the case of parallel production", *International Journal of Operations & Production Management*, Vol. 34 No. 8, pp. 974-1002.

Sheth, J.N., Sharma, A. and Iyer, G.R. (2009), "Why integrating purchasing with marketing is both inevitable and beneficial", *Industrial Marketing Management*, Vol. 38 No. 8, pp. 865-871.

Singh, R. and Venugopal, P. (2015), "The impact of sales person customer orientation on sales performance via mediating mechanism", *Journal of Business & Industrial Marketing*, Vol. 30 No. 5, pp. 594-607.

Snelgrove, T.C. and Stensson, B.I. (2017), "Selling value to purchasing", in Hinterhuber, A. and Snelgrove, T.C. (Eds), *Value First Then Price*, Routledge, London, pp. 105-107.

Timo, K., Jarkko, N. and Pullins, E. (2018), "Rapport building in authentic B2B sales interaction", *Industrial Marketing Management*, Vol. 69, pp. 235-252.

Ulaga, W. and Reinartz, W. (2011), "Hybrid offerings: how manufacturing firms combine goods and services successfully", *Journal of Marketing*, Vol. 75 No. 6, pp. 5-23.

Vitasek, K. (2017a), "Using best value to get the best bottom line", in Hinterhuber, A. and Snelgrove, T.C. (Eds), *Value First Then Price*, Routledge, London, pp. 108-122.

Vitasek, K. (2017b), "The sourcing continuum to achieve collaboration and value", in Hinterhuber, A. and Snelgrove, T.C. (Eds), *Value First then Price*, Routledge, London, pp. 138-149.

Williamson, O.E. (1975), *Markets and Hierarchies: Analysis and Antitrust Implications*, Free Press, New York, NY.

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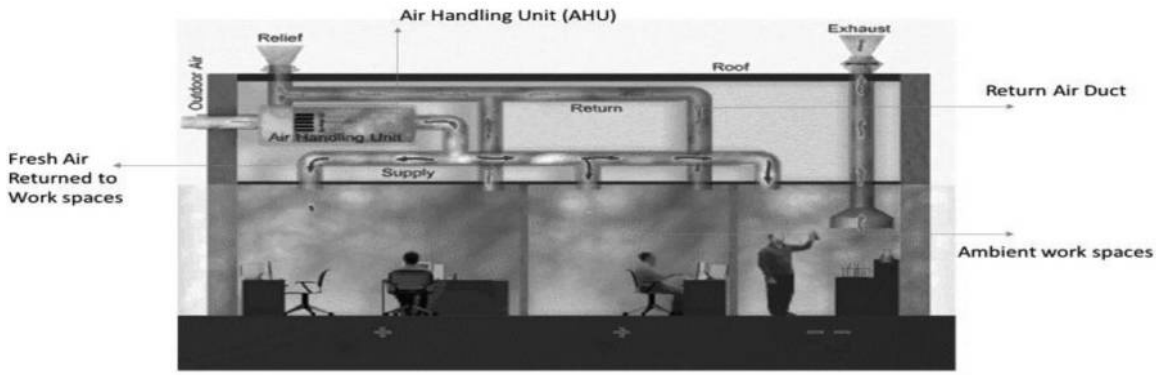
Appendix 1

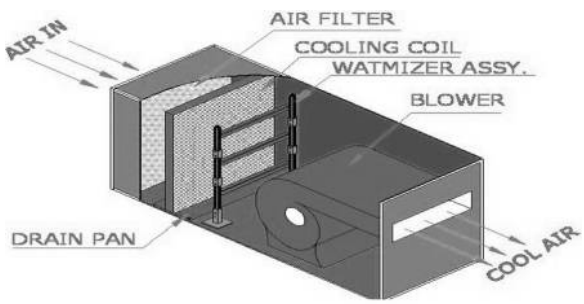
Figure A1 Air conditioning system



Source: Company

Appendix 2

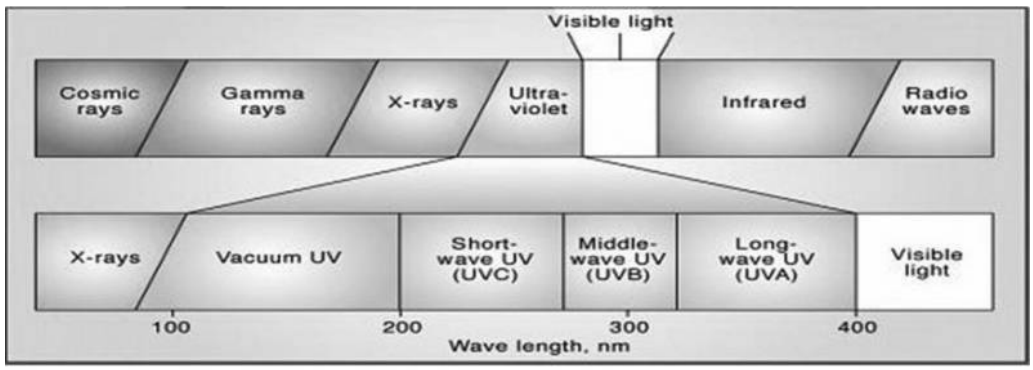
Figure A2 Typical air handling units works



Source: Company

Appendix 3

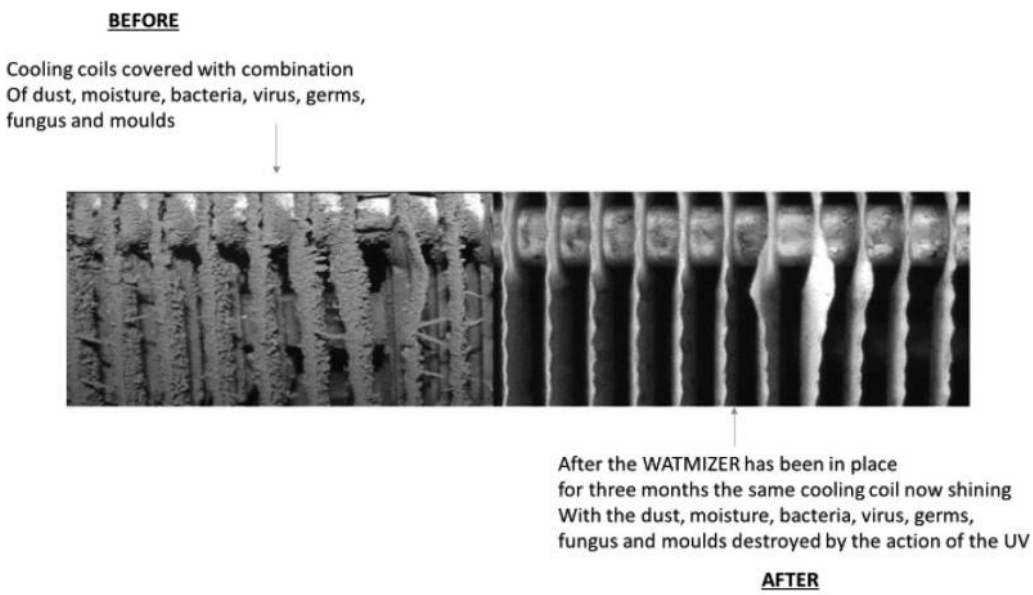
Figure A3 Ultraviolet light



Source: Company

Appendix 4

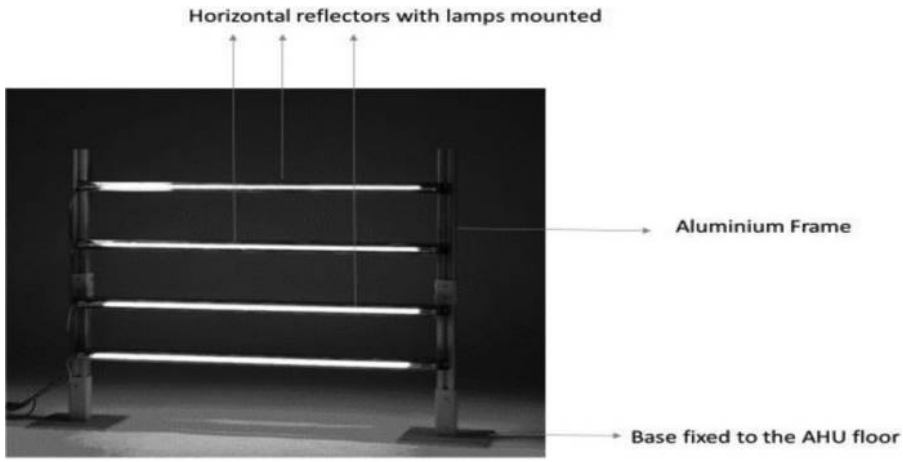
Figure A4 Before and after cooling in air handling unit



Source: Company

Appendix 5

Figure A5 Working of the WATMIZER system



Source: Company

Appendix 6

Price of WATMIZER system

Typically a building at 4 levels, housing about 600 people will have 10 AHUs of 16000 cfm (cubic feet per minute flow).

The WATMIZER system for such a set of AHUs of 16000 cfm would have in every AHU

8 UV lamps mounted on a frame and connected to ballast and a power source.

The price of the WATMIZER for each AHU would be around INR 80,000.

Installation cost would be INR 5,000 per AHU totaling to INR 85,000.

Hence, cost of the WATMIZER system for the whole building for 10 AHUs would be Rs 850000.

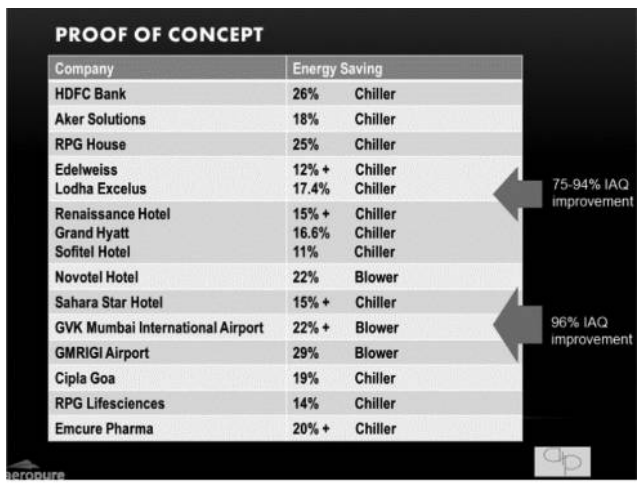
This investment was to be paid back in approximately 24 months, through energy savings.

The competitor price for the same would be around INR 110,000.

Installation cost would be INR 5,000 for installation for every AHU totaling to INR 115,000 per AHU or INR 1,150,000 for the whole building containing 10 AHUs.

Appendix 7

Figure A6 Proof of concept test



Source: Company

Appendix 8. Proof of concept test

The PoC test was a pilot test conducted on one air handling unit to prove that the WATMIZER system saved energy and improved the indoor air quality (IAQ). The test methodology included the following steps:

- The air handling unit was fitted with a British thermal unit (BTU) meter, which was fitted in the cooling water inlet pipe. This measured the energy consumed by the cooling action that happened at the cooling coil.
- Before fitting the WATMIZER system, BTU meter readings were taken regularly at the same time, every day for 60 days.
- The IAQ test was also performed to measure total bacterial count and total fungal count before fitting the WATMIZER system by placing petri dishes at locations served by the air handling unit.
- After 60 days, the WATMIZER system was fitted.
- BTU meter readings were continued for 90 days after that. The difference in energy consumption before and after the WATMIZER system indicated the savings.
- The IAQ test was repeated by placing petri dishes at the same locations as during the pretest.
- The difference in the total bacterial count and the total fungal count showed improvement in IAQ.

Appendix 9. Typical example of real time savings calculations

XYZ Company is an IT Software Company in Bengaluru. In one of their buildings, the WATMIZER system was installed in March 2015.

Number of air handling units: 8
Number of WATMIZER system: 8
Total cubic feet per minute (CFM) of air handling units: 135,000
Number of UV lamps: 80
Total cost of the system (INR) 2,350,000
Source: Company

Appendix 10

Table AI Electrical consumption cost

XYZ Company	April-2015	May-2015	June-2015	July-2015	August-2015	September-2015	October-2015	November-2015	December-2015	January-2016	February-2016	March-2016
KEB power consumption in units	126,280	129,517	127,130	126,349	130,447	133,432	135,553	128,338	129,150	133,563	122,219	138,186
KEB–power cost (INR)	1,108,972	1,188,475	1,168,032	1,163,507	1,194,369	1,220,081	1,236,446	1,179,461	1,186,251	1,220,539	1,131,287	1,258,161
BTU units	121,200	117,600	106,300	102,000	86,000	106,000	103,300	88,700	94,000	80,900	86,500	115,200
BTU cost (INR)	727,200	705,600	637,800	612,000	516,000	636,000	619,800	559,000	590,800	494,800	538,600	721,200
Total units (KEB + BTU)	247,480	247,117	233,430	228,349	216,447	239,432	238,853	217,038	223,150	214,463	208,719	253,386
Total electricity charge (INR)	1,836,172	1,894,075	1,805,832	1,775,507	1,710,369	1,856,081	1,856,246	1,738,461	1,777,051	1,715,339	1,669,887	1,979,361
	April-2014	May-2014	June-2014	July-2014	August-2014	September-2014	October-2014	November-2014	December-2014	January-2015	February-2015	March-2015
KEB power consumption in units	141,434	145,059	142,386	141,511	146,101	149,444	151,819	143,739	144,648	149,591	136,885	154,768
KEB-power cost (INR)	1,242,049	1,331,092	1,308,196	1,303,128	1,337,693	1,366,491	1,384,820	1,320,996	1,328,601	1,367,003	1,267,042	1,409,140
BTU units	135,744	131,712	119,056	114,240	96,320	118,720	115,696	99,344	105,280	90,608	96,880	129,024
BTU cost (INR)	814,464	790,272	714,336	685,440	577,920	712,320	694,176	626,080	661,696	554,176	603,232	807,744
Total units (KEB + BTU)	277,178	276,771	261,442	255,751	242,421	268,164	267,515	243,083	249,928	240,199	233,765	283,792
Total electricity charge (INR)	2,056,513	2,121,364	2,022,532	1,988,568	1,915,613	2,078,811	2,078,996	1,947,076	1,990,297	1,921,179	1,870,274	2,216,884
Savings in the month	220,341	227,289	216,700	213,061	205,244	222,730	222,750	208,615	213,246	205,841	200,386	237,523

Source: Company NB: 1 US dollar = 64.61 INR as on May 9, 2017. Thus, the total cost recovered was 11 months, which was the payback of the investment