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TECHNOLOGIES EFFECTS THE PERFORMANCE: A CASE STUDY OF HUAWEI

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Abstract---*The purpose associated with the literature is to examine the role of strategies and technologies that adopted by the Huawei in their success. Huawei is the largest telecom vendor in China and is quickly becoming a leading global player. It has provided telecom products and solutions for over 300 operators worldwide and 22 of the world's top 50 operators are using its products and solutions. Huawei focuses on such areas as 3G, NGN, XDSL, optical network and data communications. It has 24,000 employees, 48% of which are engaged in R&D. Indeed the results of this analysis reveal support for the theory of profiling as a method of lowering undesired employee attrition. With continued study, this theory could become a beneficial reality in the workplace.*

Keywords: *optical network, Huawei, data communication, employee attrition*

I. Introduction

Huawei has been operating a R&D company in Kista, Sweden under the name Atelier Telecom. The name has been changed however to Huawei Technologies Sweden AB. One of Huawei's core values is to contribute to the local and global community. Huawei stand for promoting corporate responsibility, and strive to advance socially minded practices. Huawei was the first Chinese to donate to the devastating tsunami of December 26, 2004. Huawei quickly set up tsunami rescue teams to restore communications infrastructure in badly-hit countries such as Indonesia, Thailand, Sri Lanka, and India. In total, Huawei donated RMB20 million in emergency telecom equipment, as well as additional RMB20 million in cash from the company and staff. Earlier in August of 1998, China was hit by an unprecedented flood. In response, Huawei donated remote wireless access equipment worth RMB5 million for emergency rescue, shipped the equipment at top speed, installed and commissioned the equipment within 18 hours, and maintained a 24-hours communication service. Huawei also donated RMB25 million worth of wireless access emergency equipment as well as RMB15 million in cash from the company and staff to rebuild schools (Fan, 2011).

Additionally, Huawei also built five Hope Schools in needy areas of Shaanxi and Gansu Province. Huawei has donated RMB25 million to the Education Ministry of China to set up a "Huawei Education Fund" for helping needy children complete an undergraduate education. Huawei is a member of the Global Compact advocated by the UN, which advances ten principles on human rights, labor rights, environmental protection, and anti-corruption. Huawei has actively incorporated these tenets into its corporate culture and practices to support global development goals. Digital Synchronous Network (DSN) is the most important support network in telecom-medications, just like the sphygmic of a body. With the quick increase in kind and quantity of services and consumers, it has become a new vogue to build the transmission backbone on a SDH transmission system, but without the high performance and high stability DSN, the quality of some important services and the potential of the immense capability in SDH cannot be fully utilized. In the coming years, for future proof INs, CDMA will also

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urgently demand perfect clock system and therefore it is very significant to construct a new DSN as quickly as possible (Hawes & Chew, 2011).

Aiming to provide various high-performance services such as intelligent network, mobile communications network, ISDN, etc., the first task is to construct the CCS7 Signaling Network, one of the three supporting networks for communications. The Signaling Network is composed of Signaling points (varied exchanges and special service centers), Signaling transfer points and Signaling links. Huawei has developed its own Signaling transfer point equipment (C&C08 STP) by drawing on its successes in switching technology, software engineering, chip design, and many others

Network infrastructure and technology alone no longer determine the ultimate success of its business in the telecom environment. For telecom operators, the key to entrench itself in a competitive market lies in its capability to provide the right services at the right time. Turning ideas into successful services requires a brand new approach to the industry, an approach in which "add-ons" become absolute essentials. Starting from 1993 its R&D efforts in the field of value-added service platforms, Huawei is committed to delivering complete solutions including voice and data services, such as Intelligent Network and Mobile Data Service Delivery Platform, which help the telecom operators generate revenues and entrench their market core competitiveness. Huawei has an R & D team of around 1,000 persons engaged in the OSS&BSS field. The products include Billing, CRM, Call Center, Integrated Network Management and Broadband/Narrowband Tests, and covers numerous fields such as OSS and BSS. The product of call center serves nearly 0.3 billion users and occupies over 50% of the market shares in China; 3G Billing has been successfully applied in Hong Kong Sunday; the Billing system has been extensively applied by operators in 10-odd countries. Advanced technologies, orientation to 3G, global applications and sustainable development are the objective Huawei OSS&BSS has been seeking after. After years of endeavor, Huawei OSS&BSS has been highly capable of providing full-service and end-to-end solutions. Meanwhile, Huawei has been engaged in OSS&BSS system integration and service consultation, and has conducted extensive cooperation with world-famous consultation companies, integration companies and product providers (Hussain, Mosa, & Omran, 2017).

Distribution frames have been on the market since April, 1997. They have so far been used in 226 local networks and 172 central cities in China and have already entered international markets in a large scale, such as Russia, Brazil, Peru, Pakistan etc. There are nearly 3.500.000 lines up to now, which have been running in big stations of above five thousand lines. To meet the needs of unprecedented growth and widespread network deployment, Huawei has designed a complete line of distribution frame products. All the distribution frame products provide sound cable management, strictly tested components, industry-leading modules featuring simplicity, functionality, practical modularity and flexibility. Huawei Technologies Co., Ltd., one of the world's leading networking and communications equipment companies won the "Best 3G Mobile Phone" title in the Asian Mobile News Award 2005 held on June 15 in Singapore. The top honor was awarded to Huawei's U626 mobile phone a global wariness among businesspeople regarding China's dismal record of intellectual-property protection; it's an approach that makes Huawei a magnet for suspicion, even as it consistently delivers winning products (routers, switches and wireless networking equipment, among other things). Yet with its overseas push Huawei needs to assume more of the transparency of its global peers. In the U.S. chief executives are more visible, says Kathy Xu, who follows Huawei and other private-sector businesses as managing director and country head at Baring Private Equity Asia. So when allegations suggest property-theft troubles and the boss doesn't present himself, "people will assume the worst," she says (Hussain, Mosa, & Omran, 2018).

The stakes are high. China is a big scene of growth in the world's telecommunications market, and Huawei is its rising star. More important, Huawei is building links to partners and markets in the west. In the past year Huawei has forged joint ventures with Siemens and 3Com. Exports in 2003 doubled to $1 billion as its customer base expanded to 40 countries.

Huawei Technologies Co., Ltd. devotes itself exclusively to developing overall solutions to telecom network operators with a variety of its products. Being a branch of Huawei Technologies, Huawei Training Center is committed to customer-focused training, providing a broad portfolio of high quality training products and services for all categories of staff from network operation and maintenance, network planning to network management. We understand that the efficient training is the key to the efficient utilization of today's technologies and products, at reduced costs and improved revenues.

Flexible and advanced training methods have been utilized in Huawei's customer training. The training environment supports all types of training methods including classroom lecture, multimedia training, computer-based training, web-based training, hands-on exercises with equipment and on-site training. More than half the class time is spent in lab activities in the lab-based training programs. As expected, the hands-on practice is the most beneficial part of the learning experience (Hussain, Musa, & Omran, 2019).

As training effectiveness and customer satisfaction are the keys to our training, a comprehensive quality assurance system has been established for Huawei.

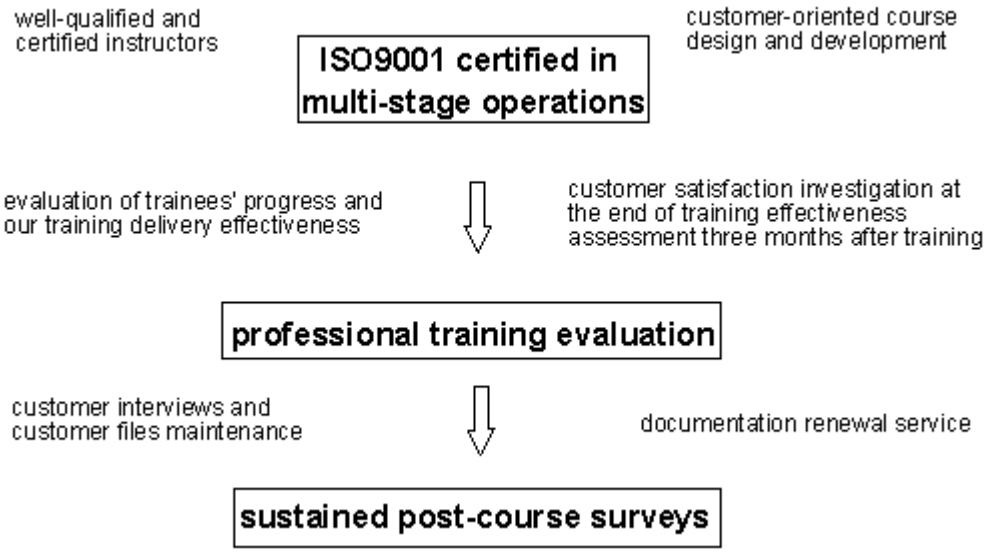

Figure 1: Quality Standards

In striving toward the goal of "cultivating operational skills and increasing investment returns" for our customers, Huawei training views the training curriculum as a commodity. The commodity is designed and developed by professionals based upon market analysis and an in-depth understanding our customer's expectations. We follow a performance-based instructional systems design process to ensure that our training solutions meet ISO-9001 requirements and adult learning principles. During or after the training implementation, continued assessments of training effectiveness are conducted so as to verify the quality and vitality of our training. Taking customers' needs and features of Huawei's products into consideration, Huawei uses modular curriculum design as a strategy, focusing on measurable objective and appropriate training sequence, duration and class size. These course modules are ordered in the most optimal chronological and didactic sequence. To date, more than 100 training programs covering the products and technologies of Huawei have been presented.

Considering the varied customer demands, Huawei has developed a three-level training system composed of training at our facilities, local training and on-site training at customer side. On-site training is conducted during project implementation or equipment operation and maintenance. It features the practicability of the contents and a high degree of problem-solving orientation. Local training refers to the training delivered at a location deemed convenient and economical by the customer

when a large number of the customer's employees require training. Such training aims at providing the trainees with the most pertinent information and problem-solving techniques. The training conducted at our facilities is characterized by a systematic approach and deeper learning. The trainees, hereby, are able not only to master the highlight points in the training program or course, but also to grow in their competence so as to perform their roles well. In order to meet increased customer demands for training in a timely and economical manner, Huawei has authorized some Education Centers in domestic cities, namely Beijing, Shanghai, Guangzhou, Nanjing, Kunming and Jinan, as well as Moscow, St. Paul, Cairo and Zimbabwe in the world. The training conducted at these Authorized Education Centers, both at home and abroad, is patterned after the training offered at our headquarters, utilizing Huawei-developed training materials, taught by Huawei Authorized Instructors, featuring high standards of measure to ensure training quality (Hussain, Musa, & Omran, 2018).

II. Literature Review

Serving its customers is the only reason Huawei exists. Its development is motivated by the demands of its customers. Since 1999, by grasping the opportunity of continuous construction and network transformation in the While customers' network construction is being realigned and market competition is becoming more severe, Huawei have stuck to its marketing strategy of "being centered on the market and focused on customers" (Joo, Oh, & Lee, 2016). By providing pertinent solutions that deliver more added value and strong support to its customers, Huawei set up long-term win-win relationships. All this has helped us develop stable and efficient marketing methods and patterns in the face of severe international competition. Chinese telecom market, Customer focus and high-performance corporate culture: Huawei adhere to the "customer first" and "good faith" service cultures, standing closely with its customers. This further accomplishes long-term win-win situations with customers. Huawei have built up a professional service team characterized by dedication and service consciousness, set up a relatively consummate integrated service platform and developed professional engineering maintenance and training capabilities. Huawei have also developed differentiated service advantages in the international markets. Huawei have done all of this simply by strengthening the value outlook of "Serving its customers is the only reason Huawei exists" and enhancing customer service consciousness in the minds of its staff. By reinforcing the value evaluation system measured by responsibility results and an excellent incentive mechanism, all its objectives are driven by customer requirements. Huawei ensure customer satisfaction through a series of streamlined organization structures and normative operation process. As a result, Huawei have developed the customers.

Cooperating with its customers, suppliers and the leading players in the industry, Huawei joins together to challenge the future through a win-win strategy. In today's business environment, it is a trend for industry peers to develop together through cooperation. Huawei are staging the open-door cooperation on a larger scale. On the one hand, Huawei are building more stable partnerships with customers and suppliers, reinforcing strategic cooperation with international and domestic mainstream operators, building up its position in key markets across the globe, strengthening partnerships with key suppliers, and improving the response time and service advantages of the supply chain. On the other hand, Huawei are specifically building up multi-level cooperation with peers, to jointly establish a future-oriented, coexistent win-win and secure development pattern. These kinds of partnerships will create better value for the world. In the past few years Huawei have initiated multi-level cooperation in many fields such as technology, production and marketing to co-exist, Huawei have overcome risks together and faced the IT winter together (Liu, Zheng, & Wei, 2012).

Huawei accomplished the business consolidation with Avansys, and sold the Huawei supply services at a price of USD750 million so the company can focus on core telecom services. In the IT winter, Huawei initiated a wide and favitsable cooperation pattern around the world. In addition, Huawei contributed low-end data communication technologies (51%

shareholding) to incorporate a joint venture with 3Com (who contributed USD165 million, accounting for a 49% shareholding). As a result, Huawei established and consummated the distribution system, and gained rapid growth in data communication services, which was forecast to increase by 100% in 2004. The joint venture enhanced Huawei's brand reputation in the world, accumulated experience in capital operation, cultivated personnel, and initiated a new international cooperation pattern for the company. Also, Huawei have founded a joint venture with Siemens to focus on the research and sales of TD-SCDMA and also cooperated with Infineon to develop the 3G mobile phone platform. Additionally, Huawei have cooperated with TI, Motorola, Agere, Intel, IBM, Sun, Microsystem, Marconi, NEC,

Independently developed chips are up to 11 million, which significantly reduces the system cost. telecom network, IP DSLAM, intelligent networks, and signaling networks, and rank among the leading players in the fields such as intelligent optical network ASON, core backbone routers, switches, UMTS, CDMA and 3G terminal. Huawei also have invested heavily in its ASIC chips. Up till now, Huawei have designed nearly 100 types of ASIC chips, including 3G core chips. The design of the chip has been enhanced from 0.5 micron to 0.13 micron. Chinese telecoms manufacturer, Huawei Technologies, is often disparaged as a copier of western companies' technologies but is being tipped to be a major new global competitor by Karl Deutsch, vice president of AT Kearney and leader of its Global Communications and High Technology Practice.

According to Deutsch, Huawei is "in a very good position to compete globally and that is what they are now starting to do. They have a huge home market, very low labour costs and very low R&D costs". Huawei Technologies recorded growth of 68 percent in international sales from $US328 million in 2001 to $US552 million in 2002, mostly from African and Asian sales. Huawei's international market now makes up 20 percent of its total sales revenue of $US2.7 billion, according to the company's web site. Huawei routers are currently used in 32 countries. During ITU Telecom Asia 2002 in December 2002, Huawei announced that its full series of routers would begin to rapidly enter the European market in 2003 via its UK distribution arm. The company claims that 46 percent of its 22,000 employees are engaged in R&D, and that it invests no less than 10 percent of its revenues into R&D. However this disparity between employee percentage and revenue percentage dedicated to R&D would back up Deutsch's claim that Huawei's R&D costs are very low. Deutsch acknowledged that Huawei's R&D was "not true R&D just copying with people who do not cost a lot," but pointed out that this was exactly how Japanese manufacturers had started to compete globally in the 70s and 80s.

"Huawei started off in developing countries, like Kenya then Brazil and Eastern Europe and now they have started to penetrate the Western European countries. There is one large European operator testing one of Huawei's products. They really gave it a hard time, but the product was very good and matched their requirement. So one has to ask what is going to happen to other equipment manufacturers." Deutsch observed, "It's like the global automotive industry in the seventies and eighties when the Japanese started to penetrate Europe and the US with lower cost products and then started to work their way up." Although Huawei may be disparaged as a copier rather than an innovator, Nokia announced this week that it had entered into "an agreement on cross-licensing of WCDMA related patents covering the manufacturing and sales of WCDMA infrastructure equipment globally" (Muhammad Atif Nawaz, Afzal, & Shehzadi, 2013). No details were given. Deutsch suggested that, if it were stock exchange listed the privately-owned Huawei would be a good bet for investors, but added that prospects of the major Western manufacturers also look good in the medium term. "Companies such as Lucent and Siemens have cut out so many people and costs that as soon as the market rebounds slightly they will have highly utilized capacities and they will make money. So they may be worth investing in for the next three to five years."

Huawei, meanwhile has entered the cellular handset market, to the surprise of many observers. A company spokesman told Reuters "We will focus on third-generation phones, as we've had a 3G research joint venture since last year, but we will

not rule out the possibility of GSM and CDMA handsets." According to Reuters, Huawei owns about six percent of a joint venture with Japan's NEC and Matsushita to develop software for 3G mobile phones. However, according to Deutsch, prospects in the Chinese handset market are far from bright. "The mobile business in China is not growing at the same rate, competition is fierce and the subscribers being signed up are no longer profitable. They use the handset as a pager. They use the calling line ID to see who called and then call back on a fixed line. We talked to the manufacturers in China and they are really desperate. One of them told us that utilization f their manufacturing capacity went down from 70 percent to 40 percent within a month, and they cannot see how it will pick up again.

"People look at the number of potential subscribers in China, about 1.5 billion but the addressable market is much smaller." The cost of advertisements (from a $200.00 classified to a $5,000.00 or more display advertisement); agency costs at 20 - 30% of annual compensation; employee referral costs of $500.00 - $2,000.00 or more; internet posting costs of $300.00 - $500.00 per listing. The cost of the internal recruiter's time to understand the position requirements, develop and implement a sourcing strategy, review candidates backgrounds, prepare for interviews, conduct interviews, prepare candidate assessments, conduct reference checks, make the employment offer and notify unsuccessful candidates (Muhammad Atif Nawaz, Azam, & Bhatti, 2019). This can range from a minimum of 30 hours to over 100 hours per position. Calculate the cost of a recruiter's assistant who will spend 20 or more hours in basic level review of resumes, developing candidate interview schedules and making any travel arrangements for out of town candidates. The cost of the hiring department (immediate supervisor, next level manager, peers and other people on the selection list) time to review and explain position requirements, review candidates background, conduct interviews, discuss their assessments and select a finalist. Also include their time to do their own sourcing of candidates from networks, contacts and other referrals. This can take upwards of 100 hours of total time.

Calculate the administrative cost of handling, processing and responding to the average number of resumes considered for each opening at $1.50 per resume. Calculate the number of hours spend by the internal recruiter interviewing internal candidates along with the cost of those internal candidates to be away from their jobs while interviewing. Calculate the cost of drug screens, educational and criminal background checks and other reference checks, especially if these tasks are out sourcing (Muhammad A Nawaz & Hassan, 2016). Don't forget to calculate the number of times these are done per open position as some companies conduct this process for the final 2 or 3 candidates. Calculate the cost of the various candidate pre-employment tests to help assess candidates' skills, abilities, aptitude, attitude, values and behaviors.

As the new employee is learning the new job, the Huawei’s policies and practices, etc. they are not fully productive. Use the following guidelines to calculate the cost of this lost productivity: Upon completion of whatever training is provided, the employee is contributing at a 25% productivity level for the first 2 - 4 weeks. The cost therefore is 75% of the new employees’ full salary during that time period. During weeks 5 - 12, the employee is contributing at a 50% productivity level. The cost is therefore 50% of full salary during that time period (Wu & Zhao, 2007).

During weeks 13 - 20, the employee is contributing at a 75% productivity level. The cost is therefore 25% of full salary during that time period. Calculate the cost of coworkers and supervisory lost productivity due to their time spent on bringing the new employee "up to speed." Calculate the cost of mistakes the new employee makes during this elongated indoctrination period. Calculate the cost of lost department productivity caused by a departing member of management who is no longer available to guide and direct the remaining staff. Calculate the impact cost on the completion or delivery of a critical project where the departing employee is a key participant. Calculate the cost of reduced productivity of a manager or director who loses a key staff member, such as an assistant, who handled a great deal of routine, administrative tasks that the manager

will now have to handle. Calculate the cost of bring the new person on board including the cost to put the person on the payroll, establish computer and security passwords and identification cards, business cards, internal and external publicity announcements, telephone hookups, cost of establishing email accounts, costs of establishing credit card accounts, or leasing other equipment such as cell phones, automobiles, pagers. Calculate the cost of a manager's time spent developing trust and building confidence in the new employee's work.

For sales staff, divide the budgeted revenue per sales territory into weekly amounts and multiply that amount for each week the territory is vacant, including training time. Also use the lost productivity calculations above to calculate the lost sales until the sales representative is fully productive (Xu & Li, 2011). Can also be used for telemarketing and inside sales representatives. For non-sales staff, calculate the revenue per employee by dividing total company revenue by the average number of employees in a given year. Whether an employee contributes directly or indirectly to the generation of revenue, their purpose is to provide some defined set of responsibilities that are necessary to the generation of revenue. Calculate the lost revenue by multiplying the number of weeks the position is vacant by the average weekly revenue per employee. Calculating and adding all these costs, given its original example of the $50,000 person can easily reach $75,000 to replace them. As you can see, the costs and impact associated with an employee who leaves the company can be quite significant. This is not to say that all turnovers should be eliminated. However, given the high cost and impact on running a business, a well thought-out program designed to retain employees may easily pay for itself in a very short period of time.

Human resource management is directly related to the overall performance of the organization. Identifying and planning for training can be linked to many corporate processes. The level of intense activity continues in local government and most organizations. Many managers and team leaders find themselves working hard on a myriad of activities. However, effort can be wasted if it is expended in a vacuum. If each activity is treated as a separate action, its intended impact on the organization may be lost. Many important initiatives are undertaken by organizations. These can include technology upgrades, quality processes, industrial issues and the like. These initiatives are important, but they must be related to an underlying theme that ties them together. Performance is the underlying basis of many organizational and human resource programs and initiatives.

Total quality management, benchmarking, re-engineering and the move to self-managing teams, are all concerned with performance. In human resource management, training, performance management (including performance appraisal and salary administration), recruitment and selection, and employee relations activities are all concerned with performance. Each makes an important contribution. Often these initiatives are regarded as separate programs. Often, when they are, they fail. If organizations lose sight of the basic goal of performance improvement, if they treat these or other programs as the ends rather than the means, then they are doomed to difficult times, if not outright failure. All activities need to be regarded as complementary rather than separate, with the underlying principles and vision clearly established (Yusheng, 2013).

The first step to a sound organization is to keep all programs and initiatives aligned to a framework of increased performance. This ensures that each activity complements the others occurring at the same time. The relationship between internal and external factors is also important. Within the performance framework, the second step is to achieve the best outcome from each activity. Improvements and achievements can be made in all areas, even the traditional ones such as training: The scene of training need provide a diversity and complexity of training requirements. To be at best practice level, organizations should be managing and coordinating the training necessary to satisfy, in priority order, all of the needs shown. All personnel involved in training should be skilled and effective. All the training should dovetail into its performance improvement efforts.

The training effort is at an optimum level when every area is addressed. The importance of training in performance management is clearly shown by the similarity of the two diagrams. Training is an important foundation of success.

Recruitment/selection is another traditional HR area. The best possible recruitment/selection processes should be in place. High quality candidates should be attracted to its positions. The person and position requirements/competencies, including the appropriate balance, should be clearly established. A variety of selection methods appropriate to the situation should be used. Selection decisions should be free of bias and discrimination. These are just some of the benchmarks to be considered. The processes used need to reflect the latest thinking. The staff involved need to have, and more importantly practice, high-level recruitment/selection skills. After training and recruitment/selection, the third and final traditional area to highlight is salary administration.

In some organizations, a whole variety of different salary and pay arrangements have resulted. Opportunities exist to bring these different systems into a new framework that may overcome the difficulties of the past. Staffs need to have confidence in the salary administration system. They want the rewards to be shared fairly and equitably. Dissatisfaction can cause severe morale and performance problems. Some enlightened Councils may establish an improved salary administration structure which is developed specifically to meet local requirements. It is possible to develop a simple structure that overcomes the difficulties of the past, yet is simple enough for everyone in the organization to understand. This can be tied to a completely new performance management approach, including better performance appraisal mechanisms. Organizations have many change programs in place at any one time. All should be related (Zhang, Rao, & Feng, 2018).

A co-ordinate approach understood by staff leads to confidence. Confidence leads to trust. Trust provides the foundation for a positive cultural environment, which in turn provides the driving force necessary to achieve performance improvements. In the first quarter 2004, China had 285 million fixed-line subscribers (penetration rate 20 %) and 296 million mobile customers (21 %). Two comments are indispensable: On the one hand, service revenue grows much slower than the subscribers' number. On the other hand, China is a land of incredible contrasts. Although low average penetration rates clearly allow further growth, rates in Beijing, Shanghai, Canton or Shenzhen, are already similar to those in Western Europe or North America.

Chinese Telecom operators focus their effort on voice. Revenues from data only account 5%. New technologies are being deployed to provide differential services. These technologies include ADSL (Asynchronous Digital Subscriber Line), WLAN (Wireless Local Area Networks), IP (Internet Protocol) telephony and services associated with mobile communications such as SMS / MMS (Short / Multimedia Messaging Service), ring tone download etc. Lacking the know-how in developing new services, Chinese operators are often cautious in purchasing cutting-edge technologies. Mobile communication, especially GSM (Global System for Mobile) is the most profitable sub sector and reports 46% of all total revenues. Concerning the Third Generation (3G), three technologies are relevant. The American system CDMA2000 (Code Division Multiple Access) is ahead of game, the European W- CDMA (Wideband CDMA) still needs two years to mature and the home-grown TD-SCDMA (Time Division Synchronous CDMA) is behind due to equipment problems.

Halfway between mobile and fixed, "Xiaolingtong" is a limited mobility service based on PAS / PHS (Personal Access System / Personal Handy Phone System) technology. It consists of a wireless local loop that provides access to the fixed-line network. With over 50 million users, PAS / PHS competes in big cities head to head with traditional mobile services since prices are typically four times cheaper. Telecom operators are exclusively Chinese: two fixed-line operators with nation-wide licenses - China Telecom and China Netcom -, two mobile carriers - China Mobile (GSM) and China Unicom (GSM and CDMA) - as well as two minor players - China Satcom and China Railcom. The State has control and majority ownership of all of them. Besides, most of them are financed in Hong Kong (HK). China Telecom, Netcom, Mobile have been pressuring the government for years to get 3G licenses. They are very likely to succeed but there is no time. China Telecom operates mainly in the wealthy Southern provinces (including Shanghai and Canton) in addition to the less

prosperous West. It runs domestic and international fixed-line networks and provides fixed-line voice, data, video, multimedia and information services. It compensates the lack of a mobile license by deploying PAS / PHS very successfully. A second focus point is broadband based on Ethernet and ADSL. China Telecom is listed in HK and New York (NY) stock exchanges. China Netcom operates essentially in the Northern provinces

III. Methods Used

This study relies entirely on primary data collected in the form of a single page self-directed survey distributed using traditional collection methods as well as being collected via the Internet in an electronic format. It is a cross-sectional study, attempting to capture responses from several demographic groups of employed Huawei employees. All survey responses were tabulated and entered separately into spreadsheet and database programs. These entries were cross referenced to capture and eliminate systematic recording errors. After having been cross referenced all entries were then again audited to ensure the accurate recording of the collected data and to eliminate the possibility of analysis errors resulting from this type of system fault.

It is important to note that due to time and budget constraints, random sampling techniques could not be utilized. For the same reasons, non-respondents have not been accounted for in this study. The survey itself is designed to be highly structured and self-directed. This was considered to be the best method of obtaining and recording the honest perceptions of respondents. Additionally, statements appearing on the survey were designed to take an extreme position to which the respondent would react. The researcher aspired to mitigate the effect of respondents who might otherwise themselves take the extreme position and skew the scoring of their individual perceptions relative to one another.

All responses were collected with the intention of providing absolute anonymity for the respondents. This was a simple manner when using the paper form of the survey. However, the electronic form of the survey relied on e-mail to deliver responses to the researcher. To maintain the anonymous nature of the study for these individuals, electronic responses were recorded onto paper forms. The transcription of responses was verified for accuracy. The original e-mail was then deleted to protect the privacy of the respondent.

Data Analysis

In analyzing the results of the survey, the researcher first grouped all surveys based on how each respondent reacted to the statement, "I will be with this company in three years". Respondents scoring either 4 or 5, More True, became one group (4/5 Group). Those scoring 1 or 2, Less True, became a second (1/2 Group). Finally surveys scoring 3 were assembled into a third analysis group (3 Group). A summary of the collected data for the three analysis groups appears. Each survey statement was analyzed and response percentiles were calculated for each analysis group. The five statements answered most often as being either truer or less true in each group were separated from the total responses.

SWOT ANALYSIS

Based on the Huawei annual report 2004 as well as on other material, the following strengths, weaknesses, opportunities and threats (SWOT) were identified by the authors of this case:

Strengths

- Customer-friendly GUI
- Quality of the hardware allows new clients to subscribe to the service automatically and on their own
- Localization process (support for European languages)
- Support two standards

• Quality of service support Institutional
• Membership in industry associations
• The relatively low cost of product development in China in comparison to Western countries
• The Chinese educational system

Weaknesses

• Reliance on only one technology
• Certain technical bottlenecks
• No possibility to track the presence of users on-line
• The Russian government's support for the IT industry is insufficient
• Imperfect legislation (e.g. property right protection)
• Underdeveloped capital market

Opportunities

• Venture capital investment
• Alliances with other market players
• Improved support from the China government to the IT industry

Threats

• Changes in legislation concerning the utilization of key technologies
• Emergence of competing technologies and standards
• The alliances of competitors with potential customers

IV. Discussions and Conclusions

Most surprising in this study, was the fact that the majority of those indicating the strongest desire to leave Huawei were individuals who manage or supervise others? Respondents in this group were least likely to think that they work for a great company. Many indicated that Huawei was less likely to have a clear mission and positive values. These are factors over which the organization exercises significant control. Most respondents in this group felt they could earn more elsewhere. They also felt it less true that there was room for them to grow in the organization. A person in this group was the least likely to feel that their work matched their best abilities. In viewing these responses, it seems more obvious why people fall into this analysis group. Most of those in this group seem fixated on fulfilling their personal higher order needs. This group clearly had the most muted unenthusiastic responses. This study confirms that the longer a person is with Huawei, the more likely they are to want to stay with Huawei. The number of years with the Huawei dropped in order from the highest scoring analysis group to the lowest. This characteristic of each group may explain why respondents desire to remain with Huawei over the long term. It stands to reason that the longer someone is with a company the more competent they are likely to be in their position. This alone could permit individuals to focus on more personal than economic needs. Driving down the time required for an individual to feel most competent in their job would seem to be in the best interests of both employee and employer.

The researcher found it most alarming that nearly 3/4 of respondents felt that they needed the benefits supplied to them by Huawei. There was an almost manic reaction by respondents to this statement. Only about twenty percent of the individuals indicated that this was less true for them. Why this particular perception exists, should be thoroughly studied. This is particularly the case in the small business setting where an organization may not have the resources required to present a robust benefit package to current or prospective employee. This is also very troubling as it speaks to the dependence

individuals feel with regard to benefits. It would seem from these responses that benefits such as medical insurance are well beyond the reach of most workers. This has great potential to harm employers, because the group scoring highest on the statement "I need the benefits" was also the group most likely to indicate a desire to stay with the organization. It is possible that a change or reduction in benefits could have a tremendous effect on the perceptions of these employees. The cost implications of this are disturbing. When considering the twenty dimensions of the workplace examined in this research study, it is safe to conclude that altering even a few of an employee's perceptions can help increase the desire to stay with the organization. The proper training of managers and supervisors to recognize the profile of each individual, coupled with training in how to turn around perceptions that the organization controls can considerably improve retention efforts. It is very unlikely that a current employee would honestly complete the survey used for this report for their current employer. However, understanding the dimensions which motivate retention, it is possible for Huawei to create mechanisms to help each manager capture this important information while there is still time to positively intervene.

REFERENCES

[1] Fan, P. (2011). Innovation, globalization, and catch-up of latecomers: Cases of Chinese telecom firms. Environment and Planning A, 43(4), 830-849.
[2] Hawes, C., & Chew, E. (2011). The cultural transformation of large Chinese enterprises into internationally competitive corporations: case studies of Haier and Huawei. Journal of Chinese economic and business studies, 9(1), 67-83.
[3] Hussain, M. S., Mosa, M. M., & Omran, A. (2017). The Mediating Impact of Profitability on Capital Requirement and Risk Taking by Pakistani Banks. Journal of Academic Research in Economics, 9(3), 433-443.
[4] Hussain, M. S., Mosa, M. M., & Omran, A. (2018). The impact of owners behaviour towards risk taking by Pakistani Banks: Mediating role of profitability Journal of Academic Research in Economics, 10(3), 455-465.
[5] Hussain, M. S., Musa, M. M., & Omran, A. (2019). The Impact of Regulatory Capital on Risk Taking By Pakistani Banks. SEISENSE Journal of Management, 2(2), 94-103.
[6] Hussain, M. S., Musa, M. M. B., & Omran, A. A. (2018). The Impact of Private Ownership Structure on Risk Taking by Pakistani Banks: An Empirical Study. Pakistan Journal of Humanities and Social Sciences, 6(3), 325-337.
[7] Joo, S. H., Oh, C., & Lee, K. (2016). Catch-up strategy of an emerging firm in an emerging country: analysing the case of Huawei vs. Ericsson with patent data. IJTM, 72(1), 19-42.
[8] Liu, X., Zheng, X., & Wei, W. (2012). From technological imitators to technological leaders: Evidence from Huawei case study. Paper presented at the 2012 IEEE International Conference on Management of Innovation & Technology (ICMIT).
[9] Nawaz, M. A., Afzal, N., & Shehzadi, K. (2013). Problems of formally employed women: A case study of Bahawalnagar, Pakistan. Asian Journal of Empirical Research, 3(10), 1291-1299.
[10] Nawaz, M. A., Azam, M. A., & Bhatti, M. A. (2019). Are Natural Resources, Mineral and Energy Depletions Damaging Economic Growth? Evidence from ASEAN Countries. Pakistan Journal of Economic Studies, 2(2), 15-28.
[11] Nawaz, M. A., & Hassan, S. (2016). Investment and Tourism: Insights from the Literature. International Journal of Economics Perspectives, 10(4), 581-590.
[12] Wu, D., & Zhao, F. (2007). Entry modes for international markets: Case study of Huawei, a Chinese technology enterprise. International Review of Business Research Papers, 3(1), 183-196.
[13] Xu, H., & Li, W. (2011). Analysis on Impact of Marketing Dynamic Capabilities' Against the Value of Stakeholders-A Case Study Based on Huawei1. Contemporary Logistics, 10(4), 104-115.
[14] Yusheng, W. J. B. (2013). TMT Attention Distribution and International Expansion Strategy Choice: A Case Study on Huawei Technologies Ltd.[J]. Chinese Journal of Management, 9(1), 89-99.
[15] Zhang, H., Rao, H., & Feng, J. (2018). Product innovation based on online review data mining: a case study of Huawei phones. Electronic Commerce Research, 18(1), 3-22.