IOGISTICS

Department of Management and Finance General Sir John Kotelawala Defence University

No Second Choices in the battle field

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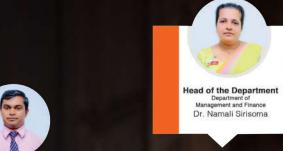
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Letter from the Editor



As per Winston Churchill "success is not final, failure is not fatal; it is the courage to continue." So, following the footsteps of our seniors we too decided to embrace the great dream of launching a magazine. It is not just a magazine, it is a combination of our effort, courage, dedication and commitment. On the other hand, it is also a reflection of our capability to be fruitful employees in the industry in foreseeable future. Beginning today, you'll find the second edition of Logistics Times which is another successful drive of Intake 32 undergraduates of the Management and Finance Department at General Sir John Kotelawala Defence University.

Logistics Times second edition features interviews conducted by our own undergraduates with prominent professionals in the industry. It also comprises of articles written by our own lecturers, undergraduates of Intake 32 and 33 and corporate sector on different topics related to logistics and transportation. The magazine also encompasses advices from professionals to shape up the career path of the youngsters who are newly entering to the industry. With the new issue, we have also unveiled a game page to stimulate the imaginative and entertainment skills of the readers.

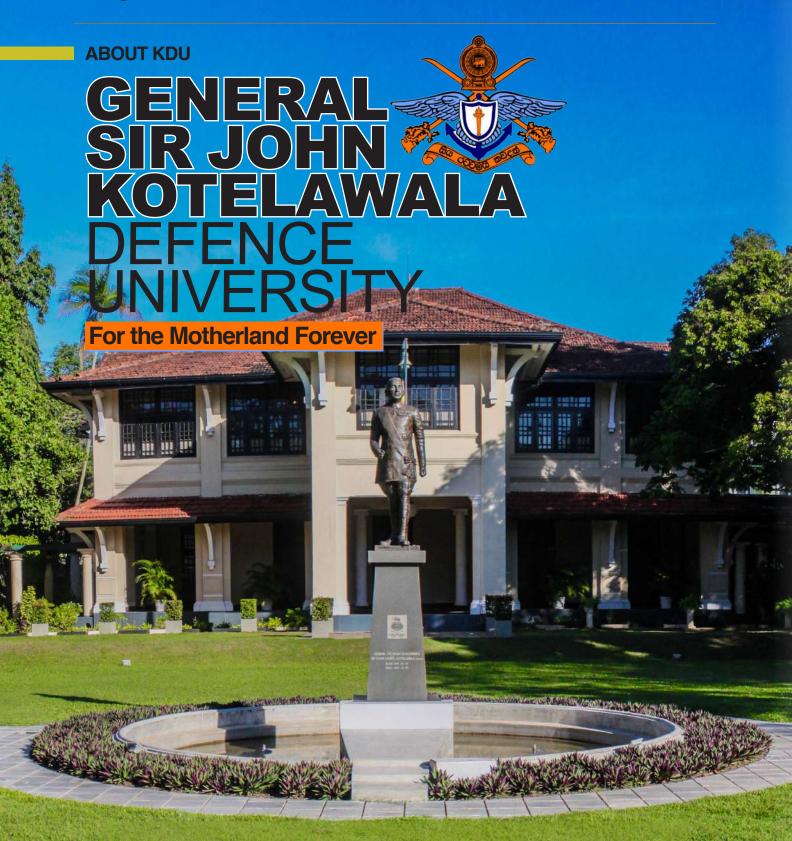
The writers of the magazine focused on the better, often, provocative aspects of university undergraduates and the industry requirements of logistics students. We hope that we have accomplished our objective of bringing about awareness through our articles and hope that all the insights provided will be useful for the readers to mold their lives. I would like to extend my heartfelt gratitude to everyone who was supporting in different ways. Specially, to everyone from the corporate sector for giving us time in the midst of their busy schedules, to the Vice Chancellor of General Sir John Kotelawala Defence University, Deputy Vice Chancellors, Academic and Defence, the Deans, FMSH and FDSS, the Head of the Department of Management and Finance, Dr. Namali Sirisoma and all other lecturers. I also convey my sincere gratitude to the chief designer who fostered artistic creativity to the magazine, the editorial board, all the writers, everyone from the Department of Management and Finance of Intake 32 and finally all those whose names are not mentioned. This would not have been a reality if not for your great assistance.

Department of Management and Finance General Sir John Kotelawala Defence University

eneviratue Anushi Seneviratne Cheif Editor, Logistics Times Magazine



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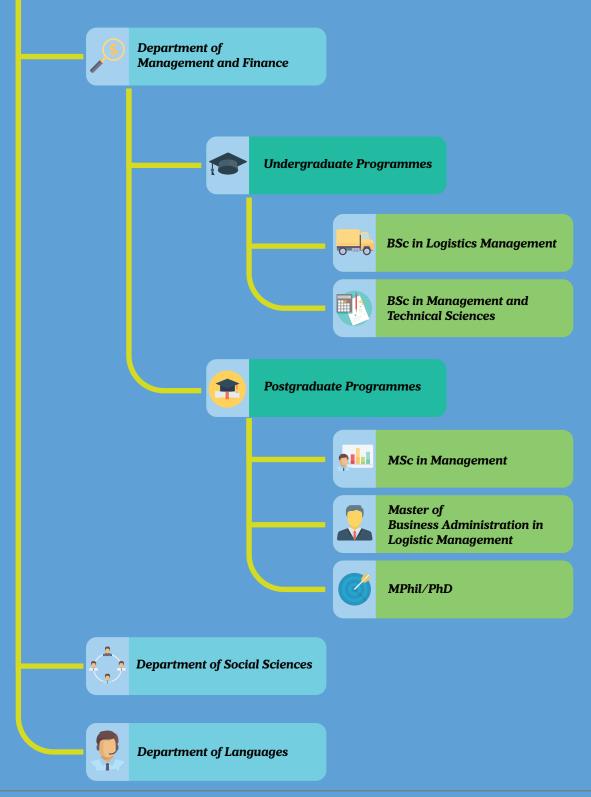
General Sir John Kotelawala Defence University is a reputed university in Sri Lanka which is producing well-educated graduates to the country with the motto of 'For the Motherland Forever'. Today, KDU has a unique recognition as it is the only defence university in the country which produces eclectic blend of officer cadets, officers as well as civilians to serve the country.



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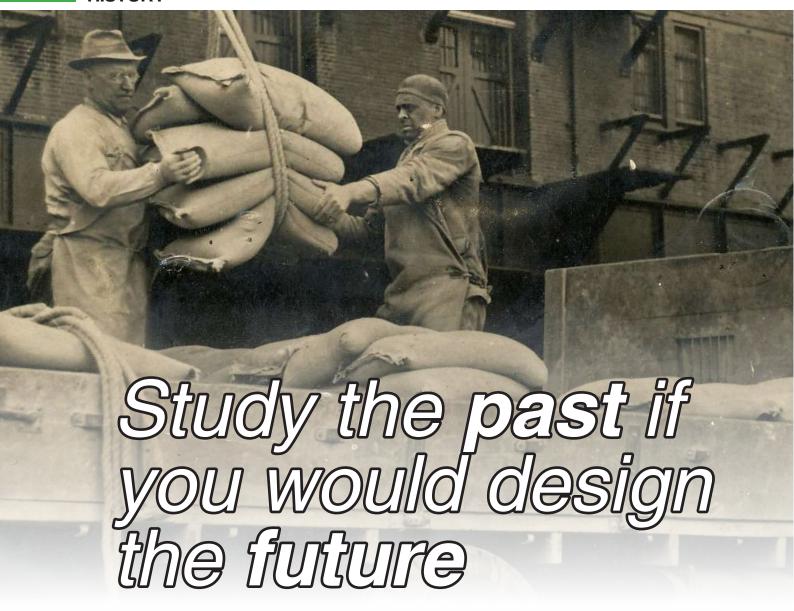


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HISTORY



It is said that 'the more you know about the past, the more prepared you are for the future'

Over the last decade, the history of logistics management has evolved from an initial focus on procurement, maintenance and transportation of military facilities, materials and personnel to the present day emergence of the term supply chain management and managing of extraordinarily complex global networks. The Council of Supply Chain Management Professionals (CSCMP) define logistics management as a part of supply chain management that plans, implements, and controls the efficient and effective forward and reverse flow and storage of goods, services and related information between the point of origin and the point of consumption in order to meet customers' requirements. Accordingly, logistics management is the core and the most pivotal role of SCM.

The emergence of logistics trace back to ancient war times of Greek and Roman empires, when military officers titled as 'logistikas' were assigned the duties of providing services related to supply and distribution of resources for the ease of the soldiers to move from their base to a new position efficiently. A prominent supply and distribution system was a crucial factor in determining the outcomes of wars which also involved inflicting damage to the supply locations of the enemy and safeguarding one's own supply locations. Thus, this led to the development of a system which can be related to the present day system of logistics management. However, logistics evolved greatly during the Second World War (1939-1945). It was characterized by dramatic advances in transportation and communication. The United States military ensured that the services and supplies were provided at the right time and at the right place. They also tried to provide these services when and wherever required in the most optimal and economical manner by performing at an unprecedented pace.

After World War II, logistics moved from warfare to business. In the 1950's the focus of logistics was on mechanization to improve the labour intensive processes of material handling, where the unit load concept gained popularity and the use of pallets became widespread. In the mid 1950's this concept was extended to transportation with the development of intermodal containers together with ships, trains and trucks to handle these containers.

Later in the 1960s, physical distribution of products began with a focus on outbound activities as the needs and wants of the mankind started to expand gradually. Physical distribution can be broadly defined as 'the area of business management responsible for the movement of raw materials and finished products and the development of movement systems' This concept thereby led to the need for joint consideration of filling orders, distribution of products, storage and warehousing, production planning, material handling and customer service. The 'National Council of Physical Distribution Management' was formed in 1963 to focus industry attention on this area and it quickly became the predominant organization in the field.

However, during this time, all the transactions were on a manual basis. Therefore, the computerization of these data opened the door to a huge opportunity for innovations in logistics planning. The 1980's thereby marks the beginning of a sea-change in logistics. The emergence of personal computers provided a tremendously better technological access to planners and a new graphical environment for planning. Hence, the logistics boom was fueled by the technological revolution as many computerized systems such as the Enterprise Resource Planning system (ERP) Material Requisition Planning system (MRP), Transport Management System (TMS) etc, were developed which enabled huge improvements in logistics planning and execution technology.

The focus on globalization accented the need for logistics to deal with complex networks including multiple entities spanning multiple countries which lead to the emergence and widespread recognition of the term 'supply chain management'. This term took logistics area by storm since the business industry embraced it and saw their activities of their areas imbedded in it. The Council of Supply Chain Management Professionals thereby defined Supply Chain Management as 'the planning and management of all activities involved in sourcing and procurement, conversion, and all Logistics Management activities'. Importantly, it also includes coordination and collaboration with channel partners, which can be suppliers, intermediaries, third-party service providers, and customers. In essence, Supply Chain Management integrates supply and demand management within and across companies.

The awareness of supply chain management began to develop as businesses recognized the importance of the role of logistics and other activities and processes in serving customers. This orientation helped in achieving better intra-company coordination among traditional and functional areas and inter-company collaboration and coordination with suppliers, vendors, and customers. However at present, businesses of all kinds are operating in a global marketplace with vendors, suppliers, and customers located worldwide. Companies today are increasingly dealing with suppliers and buyers from all over the world. The products they design, manufacture and sell are shipped globally. As a result, SCM seems to have gained increasing importance with today's large multinational corporations.

Supply chain management has changed drastically over the past. At the beginning, it was merely about the transportation and procurement of resources from one party to the other and at present as the globalization has become a powerful force within corporations and the world community, the importance of SCM has also vitally increased. It is no longer merely an element or a process but it is a global asset that is just as significant as financial and human capital. It is what drives a company to beat its competition in today's global economy. Supply chains are the game changers that will help finally turn the page to economic recovery.





Wageesha Pieris Intake 32 Undergraduate BSc in Logistics Management

INTERVIEW

NO SECOND CHOICES IN THE BATTLE FIELD, DECISIONS RELY BETWEEN Life AND Death

MAJ GEN RV UDAWATTA

psc ato Deputy Chief of Staff, Sri Lanka Army

Maj Gen R. V Udawatta psc ato joined the Sri Lanka Army Regular Force as an Officer Cadet and underwent basic military training at the Sri Lanka Military Academy (SLMA) -Diyathalawa. He was commissioned as a Second Lieutenant and posted to the Sri Lanka Army Ordnance Corps (SLAOC). He held several appointments in both operational and nonoperational areas, including Director General Financial Management, Colonel Commandant -SLAOC, Director Ordnance Services, Director Assets Management at the Army Headquarters and Regiment SLAOC. Currently, he is the Deputy Chief of Staff of Sri Lanka Army which is the 3rd senior most position in Sri Lanka Army. He is responsible for all administrative and logistics activities in Sri Lanka Army.



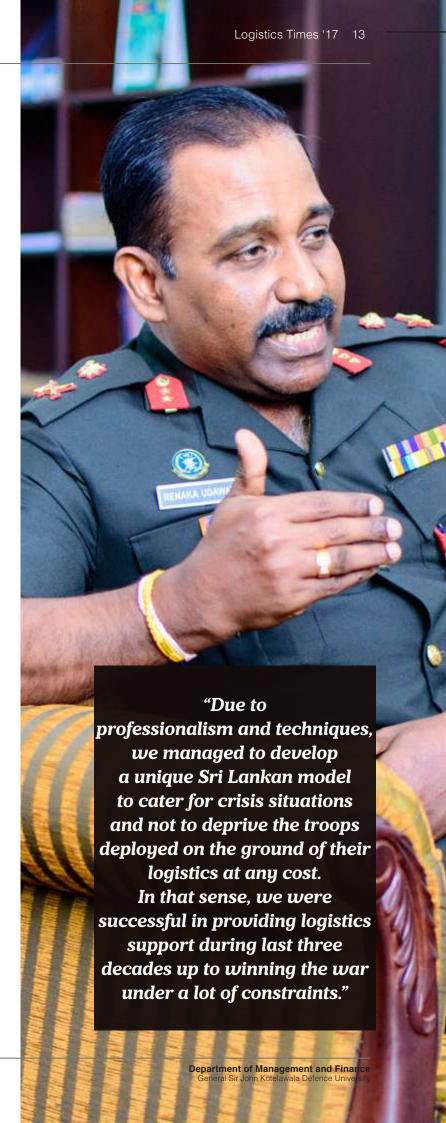
A: If you study the history during king Parakramabhahu and Wimaladharmasooriya's time we had faced invasions from South India & Western Powers. Though it was not called an Army we had a force with logistics elements & methodology to safe guard the sovereignty of Sri Lanka. Then after gaining independence, the Sri Lanka Army was raised in 1949. Since then, we were working with the same British organization and all the logistics elements which were in British Army were incorporated to Sri Lanka Army. That is how logistics regiments in Sri Lanka Army were raised to cater for the logistics requirements in the Army.

Q: Has the role of logistics in the Sri Lankan Army changed over the years?

A: Before 19–71 Sri Lanka Army was focused to be only on ceremonial role. We were never engaged in any internal or external resistance. But in 1971, for the first time, the elected government was challenged. After that there was restructuring of the logistics unit. In 1983 when the LTTE conflict was started, to face guerilla warfare we had to do lot of changes as our entire logistics mechanism was focused to sustain a conventional type battle not guerilla tactics. Later, we managed to establish a very sound logistics system to cater for any eventuality.

Q: Specifically, what role did logistics play in achieving the victory of Sri Lankan civil war?

A: There is a saying in military that in any campaign 70% is logistics and balance 30% is your tactics and strategy. In our case, it was a unique scenario. The LTTE cut off the Main Supply Route (MSR) which is the A9 route and destructed the rail as well. Later, they acquired the Surface to Air Missiles (SAM) Capability in 1990s'. For nearly 6 in a year, we could not carry our logistics adequately by sea because of Northeast and Southwest monsoons. All three modes of transportation were restricted and that was the biggest challenge we had. But, due to professionalism and techniques, we managed to develop a unique Sri Lankan model to cater for crisis situations and not to deprive the troops deployed on the ground of their logistics at any cost. In that sense, we were successful in providing logistics support during last three decades up to winning the war under a lot of constraints



Q: Can you elaborate on this unique Sri Lankan model?

A: The national plan was the key element of this unique model where the entire mechanism was supported by all three forces. It was a cohesive effort rather than individual work. The foresight, economy, simplicity, flexibility and cooperation are the basic administration principles we adhered to in addition to technology. Throughout our experience, we found out that without Coordination and Communication (C2), things were not happening as we have expected and as a result, lots of logistical problems were aroused. Improvisation is very important in the logistics field because being a third world country we may not have all the equipment and resources we require in demanding situations in the battle field. Our technical people and soldiers utilized the resources available in the environment to the maximum. Then, the other important thing is that we trained and developed our soldiers to be multi skilled. Those are the points that made the Sri Lankan model successful in the battle field.

Q: What challenges have you faced during war time when dealing with military logistics activities?

A: The first challenge that we faced was lack of resources. Buying lot of equipment, machinery and training people consumed a lot of finances. The second challenge we faced was the scarcity of human resources. We found out that we require a lot of man power to face the challenges created by the guerillas. Also, we required people to maintain the areas and keep them stabilized through establishing government control in those areas. To cater these, we went on an accelerated recruitment program. In 2005, we had 100,000 army personnel and by 2009 we increased it to 200,000. I should commend on the youth of this country who responded in an extra ordinary way when the national call was made. They rallied around and the entire nation was behind the tri-forces. In all fields, we managed to develop our own indigenous products through modifying and adding some features to the existing equipment. The other challenge we faced was the lack of transport modes in land, sea and air due to terrorist attacks. I was talking about the contribution made by the army, but if I highlight the contribution made by the air force, they did a tremendous job and the navy, they were excellent. Though it was a challenge, we made a counter plan, especially between 2005 to 2009. We were always one step ahead of LTTE. That was our success.

Q: As a Sri Lankan military officer, what was your contribution to the COE (Contingent Owned Equipment) conference?

A: The conference which I attended last month (January 2017) at the UN Headquarters in New York is a tri annual conference, where all UN member countries participate. I was the head of the Sri Lankan delegation to this conference. Under the UN system, once military troops

are contributed from a country, their equipment are also contributed to the mission. There is a system where UN reimburse some money to that respective country and to those military personnel on behalf of this contribution which is a support to the economy of the country and the living standard of the individual. Peace keeping is the contribution of our military forces to the world peace. During the COE meeting, these reimbursement rates are reviewed & recommended to be approved by the UN General Assembly.

Q: How has the rapid advancement of technology influenced the military logistics in our country?

A: When talking about technology, automation is the most visible trend in every field. But in automation, the most important thing is that you must identify where you can incorporate it. So, the first thing that we did was we developed an eight-digit catalogue in the army to cater to its material management. Then, we developed our own Automated Material Management System (AMMS). Also, we developed another automated system for financial management and procurement management where you can track all the activities in the process. We have not 100% implemented this system on procurement but it is partially implemented. Nowadays, when you call for tenders, even invitations to bid are sent through emails. All the communication is also done through internet. But, as we are a government entity we still do not allow the suppliers to submit their offers through the internet because of certain complications as public funds are concerned.

Q: Do you think that military logistics in Sri Lanka is improving with the global trends or is there a gap to be filled?

A: It is improving but there is a grey area when technology is concerned. I should not blame anyone for that because the fact what we must remember is that we fought a 30 years long war. There was a lot of destruction and we only focused on defeating terrorism. After 2009 only we got the time and resources to commit ourselves in restructuring, reengineering and modifying. But if you compare the post war development, we showed a tremendous progress. I think within a short period of time we were able to come in par with other countries. I should say as far as the efficiency and effectiveness is concerned our military forces are far above other nations. This is because of the competent personnel who are involved in military logistics and the improvisation that we carried out with the available resources.



Q: Are there any suggestions that you have made to the army, that have been implemented in this field?

A: Yes, there are many. The first one I developed was the 8-digit catalogue for capital assets in the Sri Lanka Army. Later, I was able to expand it to all other Ordnance inventories as well. Though the concept was mine, the software engineers and other parties supported me a lot. We worked for more than 12-18 months to make it a success. By 2011, we managed to develop our own indigenous software. After that, we developed another software for our procurement management. Later we introduced a lot of modifications to the initial material management system. In addition, I play the role of a visiting lecturer at Kotelawala Defence University.

Q: As a senior military officer, what are your recommendations for further development of military logistics in Sri Lanka?

A: First, re-structuring and re-organizing the military logistics is required to embrace the automation process. We should also implement an automated warehouse management system which is currently unavailable in Sri Lanka Army. In terms of military logistics, we further require automated systems to track and trace our cargo. There are many areas where you can bring in new technology, modify and improvise our available systems. Unlike in the past a lot of man power is not needed at present. So, depending on the strategical and tactical requirements we must adopt these changes and should re-adjust our organization accordingly. So, by implementing this two-way approach of re-structuring and re-organizing we can lead our logistics to become more efficient and effective.

ARTICLE

POTENTIALS OF RATMALANA **AIRPORT** TO BE DEVELOPED

AS A DOMESTIC AVIATION HUB



Dr. Namali Sirisoma

Head of the Department, Management and Finance General Sir John Kotelawala Defence University

Existing Conditions of the Facilities

The existing facilities at the Ratmalana City Airport (RML) are stated in the Airport Information Publication (AIP) available in the website of Civil Aviation Authority of Sri Lanka (www. caa.lk). The airport is located from 12 km South of Colombo at an elevation of 6.7m MSL and the reference temperature is stated as 31.60 C. This airport had been used as one of the main military airbase during the war. Therefore, both military and civil aircrafts share the runway, taxiways, aprons and hangers in the airport. Civil aircraft operations fall under the purview of by the service provider Airport and Aviation Services (Sri Lanka) Ltd and the military operations are conducted by Sri Lanka Airforce. Several local airline operators and training schools are also located in the premises. Aerodrome administration, customs and immigration, health, ATC service, fueling and handling are only available from 0030 to 1230 UTC daily when the Met briefing, air traffic services and security are available for 24 hours. There are no cargo handling facilities, hangars available, repair facilities and equipment for removal of disabled aircraft for aircraft operating into Ratmalana. The apron is shared by both civil and military aircrafts including helicopter parking. Hangars are used by the local airlines and the Sri Lanka Air force.

Existing Passenger Demands

Considering the passenger demand, 99% of passengers arrive by air from Bandaranaike International airport at Katunayake (BIA) and Mattala Rajapakse International Airport at Hambantota (MRIA) and 1% uses the Colombo port as the main access point to Sri Lanka. BIA is the main International passenger entry point which handles around 150 aircrafts per day. India is the main destination market point which brings around



50% of the total demand of Asian region. There are international flights connecting different parts of India including Chennai, Delhi, and Mumbai etc. The second highest demand comes from the other neighboring country Maldives which is around onehour flight to the Male international airport from BIA. It can be expected a growth of 5% of passengers every year in regional and domestic aircrafts.

According to the airport survey conducted at the BIA in 2011, it can be identified that 77% of the passengers have visited the city of Colombo during



Since Sri Lanka has 13 domestic airfields, Ratmalana can be the most potential domestic aviation hub connecting the tourist attracted destinations. aviation hub connecting the tourist attracted destinations. Both fixed wing and helicopter operations can be facilitated from Ratmalana to any part of the country.





As per the annual report 2014 of Civil aviation authority of Sri Lanka, Demand for Domestic aviation is increasing as per the Table 1.

Table 1: Demand in Domestic Aviation

| Aircraft Type | Total number of flights | | Number of passengers | |
|--------------------------|-------------------------|-------|----------------------|-------|
| | 2014 | 2013 | 2014 | 2013 |
| Fixed Wing (Land) | 1,224 | 1,842 | 21,126 | 4,239 |
| Fixed Wing (Float Plane) | 1,629 | 316 | 5783 | 1,335 |
| Helicopters | 443 | 351 | 1,659 | 1,984 |
| Balloon | 135 | 156 | 945 | 1,019 |

Source: http://www.caa.lk/images/annual_report/annual_report_2014.pdf

BIA and MRIA are designed to handle larger aircrafts operating on long haul and the presence of a city airport to handle the small aircrafts is important for the growth of the economy of the country. There had been 3730 charter flights operated at BIA. If the demand can be increased back into a same or higher number and attract those aircrafts into RML and introduce a new marketing plan to attract more domestic passengers, RML would be able to get at least 15 aircrafts per day within the first 5 years.

Present Constraints at Ratmalana City Airport

At present, the Ratmalana airport has many constraints in extending the runway length and width due to highly built up surrounding area including factories, warehouses, government offices residencies, lagoon at 22 end and protected sanctuary, Galle road at 04 end, Higher land values due to urbanization and obstacles penetrating in the obstacle limitation zones. There are no cargo handling facilities at the airport. To develop the airport as an aviation hub these constraints are to be overcome.

Demand for Cargo Handling

Ratmalana airport can be developed for cargo handling of small aircrafts introducing the required facilities at the premises. New railway access can be used as the main distribution mode of transport of cargo. In addition, container operations can be introduced from and to the airport using the proposed container yard in Ratmalana. Transporting cargo can generate more income to the airport. It is needed to introduce cargo handling mechanism and it can be expanded to freight distribution center by introducing a transshipment yard towards the sea side of the Galle Road.

Airport Facility Requirement

In accordance with the relevant provisions of ICAO guidelines and using planning parameters, the requirements for various facilities were established to address the development requirements of Ratmalana Airport optimizing certain decision parameters. Most crucial target of this development would be the lands acquisition of surrounding areas and resettling the people within the vicinity. Some lands belonging to government institutes and Ministries may also need to be acquired for the completion of the project.

Potentials

Rathmalana Airport can be upgraded into 4C category if the runway length and width is increased to 2100m and 45 m respectively. Then Boeing B 737 – 600 type narrow body aircraft can be facilitated in the airport. Surrounding government land can be acquired to introduce cargo handling facility, new administration complex, car parks and new passenger terminal. Galle road is needed to be tunneled to increase the runway length. Attidiya road can be the main access road to the airport. All factories penetrating in the obstacle limitation area should be relocated in a new industrial zone. Facilities for helicopters can be improved with the increase of frequency of operations, current training schools can be shifted to Katukurunda with improved facilities. Strategic business plan should be developed to increase the passenger and cargo demand in the airport. Coordination of surveys, connectivity of flights, tour packages and tourist agency participation is required in developing the business plans. Other government agencies such as Sri Lanka railway, Archeological department, business communities and domestic aviation service providers are needed to get involved in the strategic planning stage. With the new improvements and facilities Ratmalana airport has a potential to develop as the main domestic aviation hub in Sri Lanka.

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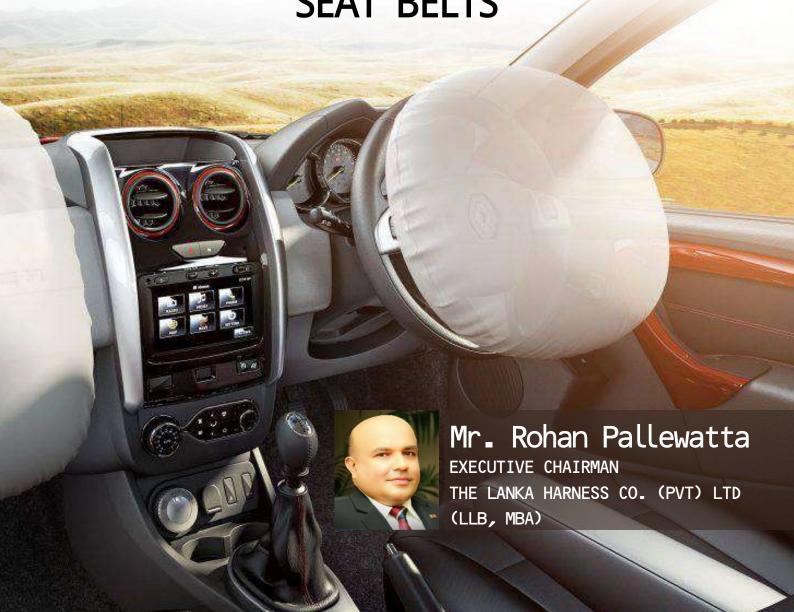








MANUFACTURER OF IMPACT SENSORS FOR AUTOMOBILE AIRBAGS AND **SEAT BELTS**



INTERVIEW

PERSEVERANCE-SECRET OF ALL **VICTORIES**

ROHAN PALLEWATTA

Executive Chairman, Lanka Harness Co (Pvt) Ltd

Starting a business from the ground level and raising it to a preeminent position is very challenging and sometimes stressful. So, we thought of heading towards the advice of a successful entrepreneur in Sri Lanka to find inspiration through his trials and triumphs. Mr. Rohan Pallewatta, Executive Chairman of Lanka Harness Co (Pvt) Ltd which makes sensors for automobile airbags and seat belts, explained what it takes to be an entrepreneur and what makes his company unique which is known as 1 ppm quality level (1 defect per one million products). He holds an MBA from University of Sri Jayawardenepura and a B.A. (English Special) from University of Kelaniya. He is an Attorney at Law by profession.

Q: In the field of quality management, we hear the name Lanka Harness and your name number of times. As the Executive Chairman of this company, how would you describe your journey so far?

A: I started this business 14 years ago. But the history runs back to my school days when I received a cultural exchange scholarship and I went to Japan for one year. It was a part of the scholarship to take me to be big conglomerates like Toyota, Honda, Mitsubishi etc. So, the present business idea was conceived when I visited Toyota, but it took me over 15 years and over 47 visits to Japan to convince that this could be established in Sri Lanka. What you see right now is only the tip of the ice berg or rather, the icing. But underneath there was a lot of hard work that was done. Now if I'm to speak about the uniqueness of the product that I offer, it's the quality requirement which is called 1 ppm quality (1 part per million is the defect tolerance rate) which is the highest level of quality anywhere in the world. There's a calculation called "six sigma" that is equal to 0 defects. But if you do the calculation properly, six sigma will tolerate around 6 defects per million. But in our case even zero defects will not be tolerated as this is a component that will decide the choice between life and death. At the impact, if the airbag does not function properly, you might end up losing your life. So, this component is called a "critical component" of the vehicle. Usually, if it's a standard vehicle, it has about 17,000 components while a luxury has twice as the standard. Toyota has been outsourcing certain components of vehicles to other countries. But the company had a rule that they would not impart the critical components to another country which became a barrier that I had in breaking into this venture. So, after 15 years here I am producing a unique product in Sri Lanka.

Q: Was there any specific reason that motivated you to become who you are today?

happiness. One reason was when you are a lawyer you cannot appear free of charge. You have to charge your client. But when I saw my clients, I saw that most them were very poor. But just because they were poor I cannot appear free of charge as I have to sustain my family as well. So, it made me wonder if I am really contributing towards the upliftment of economy of Sri Lanka as I was taking money out of the pocket of other Sri Lankans whom were sometimes poorer than I was. That is called the cognitive dissonance, when your heart and mind doesn't agree with each other.

During the 90's and early 2000, whenever I travelled abroad, I used to purchase a few books at the airport and I noticed that most of the books that I have purchased were related to management even though I was from law field. I subconsciously must have been carrying this idea of becoming an entrepreneur. Also, I believe one thing that led me to become an entrepreneur was, as I told you when I was collecting money from poor people, I thought the best way to offer a service to this country is by bringing in foreign revenue.

This motivated me as I felt that the best duty and respect that I can pay to the country that I have been born is by bringing in as much as possible foreign currency which is highly needed for us.

Q: How did you decide that this is the industry that you wanted to prioritize in?

Now I have to go back to my school days again. This present business idea was conceived during one of my visits to Toyota as I told you earlier. I saw this product in Japan and it could be feasible to be implemented in Sri Lanka.

Even though we had more garments and so many other products, we were not known for having sensors in Sri Lanka earlier. So, I thought and I was confident that we can introduce sensors in Sri Lanka and that is why I decided to

Q: What are the values that you have implemented to differentiate Lanka Harness from its competitors?

prioritize in this industry specifically.

Well for one thing, we did not have competitors as such in the region. We use a strategy called "blue ocean strategy" as there are no competitors. Also, to achieve 1 ppm quality, we use a special culture called the "trust culture". This means although there are cameras for different reasons, we don't have them to monitor the workers because I believe that the moment you fix a camera behind an employee you are encroaching human dignity. So, we tend to trust everyone without any hesitation. When a work is given, we believe that they will do it. We don't even have a supervisory grade for that matter because I don't want anyone to be standing behind another person and be supervising.

There is a certain process of how a defect is been detected in process. For example, if there are 10 steps, it is the responsibility of the person

who does the 2nd step to ensure the previous step has been done correctly before focusing on their stage. If the 1st step is the reason that has caused a defective part, it's not the responsibility of that person who handled it. It will be the responsibility of the person who did the 2nd step since he should have monitored the previous step and identified the defects.

So usually, everyone ensures that the previous step has been done correctly without any supervision and that is the trust culture we have built in Lanka Harness.

Q: How did you develop such a relationship with world renowned automobile companies?

As I mentioned, it took me 15 long years to convince them. Specifically focusing on Toyota, within the course of one year I sent them samples at least 6 times for which there was no proper reply. They were very reluctant to even consider giving a Sri Lankan a chance to impart with a company as renowned as Toyota. The turnover of Toyota is equal to the GDP of 60 countries put together. I can't say I was further encouraged with the negative comments I received from them. But for some reason which I cannot explain logically, I again started sending samples after about 3 months. Yet, I was discouraged and rejected for so many times before I got the approval. Finally, I got the opening to supply Toyota company, and currently, I'm supplying to Toyota, Honda, Nissan, Mitsubishi and all the brands in Japan. In addition, I also supply parts to Europe Volvo, Saab, BMW, Aston Martin, Volkswagen, Opal and General Motors, Ford, Chrysler in USA. In this business, how it happens is when you supply to a well renowned company as Toyota, going for other companies is rather easy. In most cases, it is actually a referral by Toyota, that led our company to develop relationships with other renowned companies in the world.

Q: Where do you see your company in the foreseeable future?

Our corporate vision is to see the day when automobile accident fatalities are zero. This is possible now not only because of air bags but also because people are now developing cars which are already in the market that can communicate with each other. It is said that by 2020, 82% of vehicle to vehicle collisions will stop as the vehicles will communicate with each other through cloud connected means. But, airbags would be still relevant as the vehicles could slam into non-vehicle hurdles. But my concern is "what if some new technology is introduced and airbags become obsolete?" So, I'm currently working with institutes such as Nano technology in Sri Lanka to come up with a proposition that replaces the function of the air bag. But of course, that alternative solution should be cost effective. If we come up with a solution that is cost effective and also effective in its function at the same time, we can patent it.

Q: What were the obstacles you went through in order to be a pioneer within the industry?

I think the main obstacle was to convince that a country like Sri Lanka can do this kind of high quality products. Our country was merely considered as an island nation where it was about leisure and tourism. We as Sri Lankans did not come into anyone's mind whenever they thought of outsourcing with a different nation. But I think we have a very intelligent labor force in our country. For example, in case of garment sector, in Bangladesh it takes 6 months to train a girl for a Juki machine while in Sri Lanka it's only

6 weeks. This maybe the reason why I was able to produce and sustain quality in our products throughout. Also, at the beginning, there were usual delays of the authorities. If I list down, there are more than 40 institutes that you have to get permission from. Foreign investors who don't have a Sri Lankan partner could be demotivated by this. But once I started running the business, being in the BOI zone was very advantageous.

Q: What suggestions would you recommend for the upcoming young entrepreneurs?

The motivation to start something new should not come from outside pressure. It has to resolve within you. It is the pressure that you exert on yourself from within that will bring something new and that will bring the best in you.

"The one who wants to be a good entrepreneur and to conquer the world, should have a very strong inner resolve. If you have a great idea and if you are confident about it, don't seek for too many opin-

ions." Success is not going to come overnight, it is not going to come at the first attempt, maybe not even at the second. I had to go to Japan 47 times and even on the 46th time I did not know whether they were going to say yes. Also, there is no straight line for success and it will always be a path with ups and downs which is a good indicator to show that you are progressing well in life. Therefore, the key to become a successful entrepreneur is perseverance.







businesses which now provide easy access to trishaws as well. However, traveling in a trishaw several times per day is not sustainable for long term use. And yet, 25.5% of the population opts for trishaw travel daily, outlay thousands of rupees for a comfortable travel. As we see here the need of feeder services to main hubs are a rising need of daily commuters. With the emerging technology and global trends Sri Lanka is on the path to find solutions to satisfy the users of public transport and attract the nonusers.

A three-tiered systematic approach to transportation could help overcome this steep increase in road congestion, according to Ranjit Fernando, chairman of the Urban Development Authority. The first part of the plan would be to service seven main entry nodes to Colombo by rail or by bus, while the second tier would involve intercity bus transportation. The third tier would necessitate an inner-city transport loop, likely either mass rapid transit or monorail, which could serve the more heavily congested urban areas.

In the meantime, upgrades to the bus system remain the most viable short-term strategy to easing the country's transport woes, given cost constraints for more ambitious projects. The challenge to reforming the system lies less with investment and more with how to reposition existing players and reliable policy changes. If we look harder the solutions for our transport matters can be seen in neighbor counties and we can reform and adopt the desirable.

Like in some Asian cities, Sri Lanka must introduce smart cards as a cohesive system to pay for transportation. By installing GPS systems on buses, the public could keep track of their routes, arrival times and estimated time to destination. This would save people anxiety over bus delays as considerable time is unexploited. The introduction of mass transit system is also under deliberation along with a suitable public transport system including different systematic tiers of service linked with land use under a single authority, Urban Development Authority (UDA) sources revealed. Recently a contract has been signed between the 'Airport Express – Air & Rail Company (Pvt.) Ltd.' of Malaysia and the Government of Sri Lanka to start an Electric Train System between Negombo and Colombo. AEARC is spending a sum of around US\$5 million to carry out a detailed feasibility report on the whole project. The construction work will be implemented once the green light is obtained for the commencement of the proposed project by the Sri Lankan Government. The proposed project comprises 42 km stretch of rail track between Negombo and Colombo Fort. Other than that Japan International Cooperation Agency (JICA) has already conducted a feasibility on the Monorail which is more or less similar to LRT. Optimistically speaking starting of the feasibility study by 2017 and then the project would be able to kick off Phase I by 2018 with detail designs and then construction and Sri Lanka would be able work out some operation by 3-4 years after feasibility which means within 2021. Under the new administration plan to create 'magapolis' of over 9 million people in the Western province by 2035 traffic projections and capacity has substantially changed.

With 30 years of war and countless ups and downs Sri Lankan transportation now has come to an era where is shows positive potential of expansion and the capability to provide a better service to Sri Lankan commuters. Comparatively to Asian region though we are lacking in some areas in public transportation that open the door to improve and adopt the systems to Sri Lankan context and lead to a competent service to the travelers while saving time and energy. If the positive energy keep on going the commuters will be less drain by the transport problems and they will relish the better ride.



Sahana Pramodi Vithanagama Intake 32 Undergraduate BSc in Logistics Management

INTERVIEW

The Truth behind 3PL Sri Lanka

RUWAN WAIDYARATNE

Managing Director, Hayleys Advantis

he following interview was conducted with Mr, Ruwan Waidyaratne the Managing Director of Hayleys Advantis Limited, the transportation and logistics arm of Hayleys PLC. As a pre-eminent figure in the logistics industry in Sri Lanka, Mr. Waidyaratne has made significant contributions to the industry for over three decades. He is also a Board Director of Hayleys PLC, a diversified blue-chip conglomerate operating in multiple countries.

Q: Third Party Logistics (3PL) firms either provide a single service or a wide bundle of services which are capable of managing the entire supply chain. How do you see the level of 3PL industry in Sri Lanka?

A: 3PL is a very dynamic industry with many inherent complexities. Only a handful of 3PL providers in Sri Lanka provide a complete logistics solution for customers.

In our case, we handle logistics for many multinational companies operating in the country here and in overseas locations like Myanmar, India, Indonesia and many others. By working with this diverse client base and by operating in multiple countries, we have gathered a lot of experience and developed our expertise in providing innovative solutions for complex requirements. We provide complete end-to-end logistics solutions for our clients thereby creating a lot of value to the clients businesses. That is part and parcel of third party logistics. In reality, there are only a handful of people who offer actual 3PL services in Sri Lanka.

Q: Nowadays, delighting customers rather than satisfying is the key trend of any business. What are your recommendations to enhance the value-added services provided by 3PL firms?

A: 3PL is all about the right partnerships. You cannot work individually and try to delight a client. You need to work in very close collaboration with the clients, if your intention is to create value for them. Because at the end of the day, it is about integrating your services into their complete supply chain.

So first of all, you need to understand what the customers' and ultimate consumers' expectations are before designing a solution. This is a process that we continuously work on at Advantis to optimize the solution as we are always looking to make it more cost effective and more productive. Creating value single handedly is quite impossible. Thus, working in collaboration is absolutely necessary when it comes to 3PL businesses. There should be a very good understanding with all parties allowing for positive synergies to be created which can give a far better output.

Q: There is a need in 3PL sector for better connectivity and collaboration with both customers and supply chain partners. What sort of strategic approach is required in these aspects?



provider. We must always work on understanding customer needs and expectations and then design logistics solutions to meet these needs.

In delivering optimal solutions not only do you need to collaborate with the customers, but you also need to work very closely with the suppliers or service providers and drive overall value rather than focusing on cutting corners. When you collaborate your strengths you can achieve synergies that will bring more value to your customers and ultimately generate more value to your company as well.

Q: Heading towards e-logistics is the current trend in Sri Lanka as well as other countries in the world. How has this trend influenced the 3PL industry of our country?

A: E-commerce in Sri Lanka is still at a very primitive stage, but of course there's a lot of opportunities in the sector. Consumers are looking more and more towards convenience as opposed to cost, and with online payment gateways becoming more secure, Sri Lankans are also moving more towards online purchases as opposed to walking into shops.

But one area that e-commerce solution providers have not mastered yet, is the logistics aspect of the solution concerning both fulfillment and last mile delivery. I believe there's room for improvement in this area and 3PL players have a huge opportunity to bridge the gap. With our expertise we can work on improving fulfillment services and last mile delivery which can make

significant change

e-commerce in Sri Lanka.

Q: Distribution of cargo needs to be performed efficiently and effectively to provide a better service to the customers. How do you manage your fleet and transport networks to facilitate this service?

A: Right now we work with state of the art transport management systems with GPS tracking that allows us to know exactly where each vehicle is at all times. Those days when you send a truck out of your premises, you have no clue about its location until it reaches the destination. But now with the tracking systems in place we know exactly where they are.

We have gone to the extent of giving that visibility to our clients as well, so that they know exactly where their goods are. Giving that visibility enables us to earn their trust faster and create a win-win situation. It also ensures that the distribution is carried out more efficiently.

Another thing is using the Uber model for trucking operations. There are plenty of occasions where our trucks are sent out with goods but come back empty. If you can create visibility through a network on trucks that are available and which routes they will be traveling on, there may be others who could utilize these empty trucks to transport goods. Which

once again adds revenue

stream for the company. This also reduces fuel consumption on a national scale, as a separate vehicle will not have to be sent to collect goods. If this can be practiced, it will pave the way for a more sustainable delivery system which also has a reduced carbon footprint.

Q: The geographical locations of distribution centers are critical to speed up the delivery process of freight to their destination. As per your view how should we determine the best location to fulfill this requirement?

A: Well this will change from client to client. We generally conduct a study to identify the center of gravity for each client based on their movements, prior to deciding the distribution base. So, you need to get data to understand



the movements and to understand the delivery dates, timelines etc.

For example, if the center of gravity is Kurunegala, you need to identify the most efficient routes by setting up a hub close to that location. It's not about just movement of goods, it's about analyzing data and to do that you need the right technology on your

One thing we've learned by working with multinationals, is to find better ways of doing what we have been doing for years. Innovation is key to being on top of the logistics game and multinationals always push us to do better and add more value at lower cost. They have challenged us to do much more than what we thought was possible, but they have also been by our side to guide us with their knowledge of global practices. One thing you need to always remember is that you cannot clap with one hand in logistics. As I mentioned earlier, to create a successful supply chain we need the support of the customer as well as the service provider. So even in identifying the best distribution hub for a particular client, you need to consult them and get their input prior to designing the route plan.

Q: There is a slow growth rate in the logistics industry in Sri Lanka compared to other countries. What are the underpinning reasons for this situation?

A: Even today Sri Lankan's tend to be more cost conscious as opposed to focusing on the total value creation. This I believe is one of the main reasons for the slow growth in 3PL or the outsourcing of warehousing and distribution. The majority of our clients today are multinationals. They understand the benefits of outsourcing their warehousing and distribution to experts and what they stand to gain by doing sol

warehouse on your own as opposed to outsourcing you will have cost benefits. But what you need to look at is the total value creation as opposed to one on one cost comparison. With our warehouse management systems we provide so much data which can help our clients' better plan their activities and this will lead to more benefits in the longer run. This is why multinational companies are more inclined to work with 3PL service providers. We basically enable them to focus on their core business and handle their entire supply chain hassle free. If the locals also start looking at the bigger picture, they will definitely see the value in working with 3PL service providers.

Q: As a professional of a leading company in this industry, what are the bottlenecks that you have faced when dealing with 3PL activities?

A: Manpower is one of the biggest issues we have had in the past and continue to have even today. I see that a lot of youngsters don't see logistics as an interesting field to work in. They don't seem to appreciate the value of it, though it's a very important area of business. If you actually look at it, the whole country runs with logistics. If all logistics networks were to stop operating, the entire country will come to a standstill. But the importance of this job role has not received enough prominence in the past.

However, now we see the situation improving a bit, with more students registering for logistics related courses, which is a good sign for our industry. People showing interest is a good thing, but the issue is in finding people with the right set of skills. Even at the lowest level, finding labour is quite challenging. Because there are more interesting jobs in hotels, tourism and construction industry and we see that more people are moving

construction etc. we have not hired people from other countries, simply because we have enough expertise within Advantis itself.

So all in all, skilled logisticians is a huge bottleneck at the moment. But I do see this improving in the future.

Q: Young people always follow role models in the industry. So, as an experienced professional role model, what is your advice to those who seek opportunities in this field?

A: In my opinion, logistics is a growing industry which is going to play a big role in Sri Lanka. As you would know the government is also making significant investments towards establishing Sri Lanka as a logistics hub. So, I would encourage anybody to do logistics and supply chain studies. We need specialists who are qualified in the field, but it is always good to have the practical side also to give you a good balance when entering the corporate world.

Apart from following related courses I would also advice any student to follow an internship programme. At Advantis, we offer some structured internship programmes which would really allow you to get a better understanding of the industry before you enter it as an employee. This can really propel your career as a logistician to greater heights. There is so much of potential to grow in this industry, if you give it the right focus and commitment.

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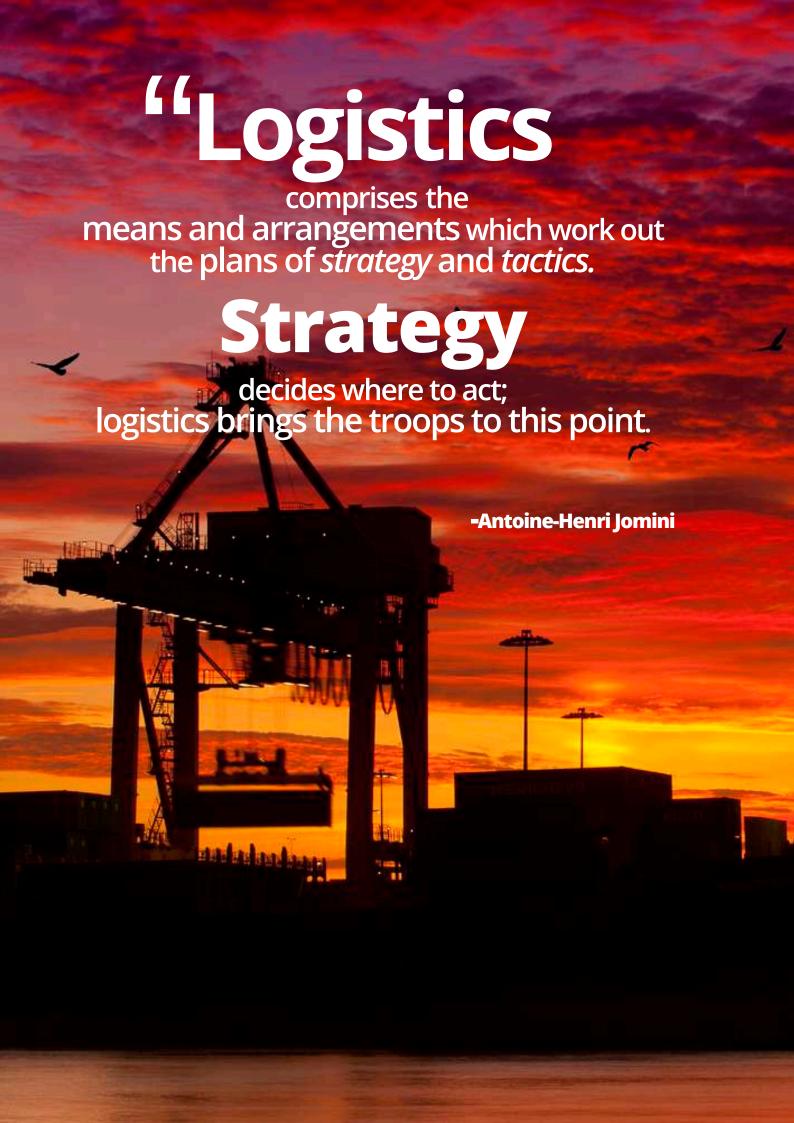
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ARTICLE

JOB MARKET IN THE FIELD OF LOGISTICS

In today's business world, logistics has become one of the most vital career fields even though its concept originated from the military. A few decades ago, the importance of logistics was not recognized by businesses but due to the dynamic environment, the significance of logistics is increasing day by day. Logistics can be defined as "the process of planning, implementing, and controlling procedures for the efficient and effective acquisition, storage, movement, distribution, maintenance of goods, services and related information from the point of origin to the point of consumption for the purpose of conforming to customer requirements." All types of businesses either manufacturing goods or providing services, need logistics from the initial stage of securing suppliers to the delivery of finished goods to consumers. The opportunities and challenges in the field of logistics are drastically increasing with the expansion of free trade and the global economy. "Meeting customer expectations" followed by "on-time delivery" has become the main challenge in logistics. Some of the other challenges can be mentioned as increasing competitive intensity, rising customer expectation, low delivery cost, increasing number of products, customer demand for small amounts, frequent shipments and multimodal transportation.

Sri Lanka is known as the "Logistics hub" in South Asia due to its prime location, lying in the middle of a major trade route and serving as a gateway to the Indian subcontinent. Logistics plays an important role in the economic development of a country. At present, the service sector is the leading sector in the country which

contributes approximately 60 % to the country's GDP. Out of that 60%, logistics and transport sector has contributed 12% to the GDP in past 5 years. In 2014, the country earned USD 31 billion from this sector. According to the Logistics Performance Index (LPI), World Bank report, Sri Lanka was ranked at the 89th position in logistics performance by achieving 54.3% performance in 2014 out of 160 countries. Currently in Sri Lanka, around 1 million people are working in transport and logistics fields. But, there is a lack of staff in some areas of these fields. Not only in Sri Lanka, most of the countries such as US, UK, Australia, Canada face problems related to shortage of staffs in the fields of logistics, supply chain and transportation due to lack of awareness and understanding of this sector. The United States revealed that the employment in the field of logistics will increase up to 25.5 % from 2010 to 2020. According to Bureau of Labour Statistics report, future career opportunities in the fields of transportation and logistics management (TLM) are estimated as:

- 1.3 million staff will be required in order to fill up the jobs in the fields of transportation and materials handling.
- 1.8 million staffs will be required in retail trade logistics field.
- 853,000 jobs will be available in transportation and warehousing fields.



As per the Material Handling Industry (MHI) report, 270,000 new jobs will be required in supply chain, material handling and logistics fields by 2018. The average annual salary of the top market for the logistics field in the US is about \$96,740. In UK, over 2 million people are employed in transport and logistics fields and accounts for 14% of all employment in the country. There is a huge growing demand for people who can enter into the fields of logistics and transport professions in UK. Many companies face severe skills shortages at all levels in logistics and transportation fields. According to the Canadian Supply Sector Council, there is a requirement of approximately 360,000 supply chain jobs this year. 1.2 million people are

employed in the field of logistics by adding \$131.6 billion to Australia's economy in 2014.

Procurement manager, demand information planning analyst, specialists, inventory planners, distribution center managers, procurement managers, operations managers, logistics managers, distribution centre supervisors, supply chain consultants, mechanical handling engineers, training and human resource managers and transport schedulers are some of the most growing and demanding logistics, transportation and supply chain jobs. Further, the expected degree or master level qualification in the logistics field are business logistics, supply

chain management. economics. transportation, engineering, physical science etc. Graduates or masters entering the logistics field could work in various organizations as logistics service providers, supply chain consultancies, warehouse managers, transportation providers, technology providers, retailers, manufacturers and freight forwarders. Therefore, it is clear that there is a high demand for logistics professional in the job market at present as well as in the future. As a logistician, we need to focus on trends such as change management, outsourcing, globalization, environmental issues, ethics, compliance, multi-channel sourcing and sustainability.



INTERVIEW

PROFICIENCY UNVEILS THE SUPPLY CHAIN TRENDS IN FMCG INDUSTRY

JOSÉ ROLDAN

Supply Chain Vice President, Nestlé Lanka PLC

The Fast Moving Consumer Goods (FMCG) industry is dealing with millions of people around the world on a day to day basis to fulfill their needs. The performance of supply chain is a key factor for the success of this industry, as FMCG products usually have large volumes, a low unit cost and are characterized by complex distribution networks. The intense competition forces industry players to constantly work on supply chain innovations, technological embracement and sustainable practices. To explore the insights of this industry, we sought the guidance of a professional who has local as well as global experiences in this industry.

Q: Who is José Roldan? How did you begin your career?

A: I am a Mexican. I started my career as a Mechanical Engineer and am currently attached to the Supply Chain Division at Nestlé Lanka. I have been with Nestlé for 16 years.

When I joined the company as a Management Trainee, I worked in the manufacturing division where I was assigned to work on a very specific project to open a new factory.

Thereafter, I was involved with some industrial performance roles at the corporate level and started working on some projects overseas in manufacturing. From there onwards, I moved on to logistics and started working more on supply chain.

I worked on IT support and various projects for supply chain in Canada, Europe and America and went back to Mexico six years ago, where I worked on the transportation area in the operational department.

Later on, I became the Supply Chain Manager for one of our businesses and was appointed Director of Demand and Supply Planning for Mexico soon after. I was finally appointed last year as the Supply Chain Vice President for Nestlé Lanka.

Q: Staying competitive in today's supply chain markets will determine the foreseeable future of a company. What can companies do to survive in the market?

Companies must understand consumer needs. From a supply chain point of view, a consumer would not be willing to pay 50 rupees or 100 rupees for a product just to get hold of the product itself; they will of course be looking for the flavour, nutrition other product benefits. Consumers hardly think about the logistics of getting the product transported from the factory to the outlet when it comes to value for money. From a consumer's perspective, there is no value perceived in supply chain. That is actually the biggest challenge that companies face because they have to be very optimal in terms of course and be flexible in terms of work. customers, markets and consumers' requirements.

From the company's perspective, the challenge is becoming completely consumer oriented. The first, second and third priorities should be always the consumer. Companies need to understand what is going on in the market, what do consumers need and what should be done to adjust to those needs. There can be failures if companies cannot inspect logically about the market. Nowadays competitors are more aggressive. Speaking of large international companies, they should be much more flexible and reactive to what the market requires.

Q: According to reports, industry players are taking the driving seat in growing Fast Moving Consumer Goods (FMCG) volumes. How could this influence the current trends in the industry?

A: Definitely it's good in terms of high competition. I always believe that it is the best thing that has happened to us. New players are coming into the industry. So, companies have to be sure that they are sustaining their market shares whilst being able to fulfill consumer needs.

Also, they have to be optimal in terms of cost and supply chain. Attracting more players bring benefits to the country as well. However, there should be good infrastructure in order to reach in much optimal way to all the consumers across the country, which definitely will help to increase



levels of fresh milk. This is a wellestablished programme. I could say, if one does not develop his own farmers and his own sources, no one else would put any effort to develop them.

Q: Being a supply chain expert, how do you see the embracement of technological advancements by the FMCG industry in our country?

As per my opinion, it is relatively low. Technology is becoming more competitive and challenging and I think technology is moving very slowly in the country. I have also noticed that there is lack of trust for technological alternatives; so people do not believe and raise 'what if' questions. This mindset should be changed in a way that they can challenge the process by implementing these alternatives. Thereby, I am sure that it will become a key driver in developing the supply chain process. If more investments can be brought into the systems, the cost of labour will be relatively low. However, the mindset should be ready to bet on the technology and somehow compensate the lack of trust. In that manner, we can challenge any company and move forward.

Q: Lack of planning and coordination between supply chain tiers often lead to negative consequences. What are your recommendations to overcome these?

A: Well, the planning process is a key function. Therefore, it should be robust enough from one side to enable proper communication across the entire company, and from the other side to cooperate the balance. With miscommunication, the demand from the market is not correctly informed and that will cause someone an issue. Therefore, the process should enable some kind of a buffer that can cover those. Once again if communication is carried out on time and to the right person, everything will be fine.

Q: Supply chain is indeed a vast industry that keeps on evolving. Up to which extent and how could global FMCG practices be applied in the Sri Lankan context?

"All practices from supply chain can be applied to any market with its respective 'customization' and 'simplicity'. You can't just simply copy-

paste practices from one market to the other; you have to consider all local factors to ensure your implementation is successful."

Otherwise you will end up taking the risk of crashing the entire operation; people in turn will lose credibility on the practices that you are intended to put in place. So, there should be a customization factor to your main approach. Sometimes the challenge can be the payback but sometimes it can be a mere mindset change.

Q: As per your professional viewpoint, what changes would you expect to further develop the supply chain of the FMCG industry in Sri Lanka?

A: I believe investments should come from both the government and private sector to develop the infrastructure of the country and thereby develop supply chain. Companies put a lot of effort on their processes to cater to a wider range of customers. So, they invest a lot on training and development because understanding about taking care and handling processes are mandatory



requirements. But I think in that sense, there is a lack of training when it comes to improving the entire supply chain process. If a certain product has to go out from our Nestlé factory all the way up to Jaffna, any single participant of the entire supply chain must be aware and must have the right tools in order to make changes in the best way possible. Furthermore, rather than buying from outside, buying from local markets too can drive the country towards development.

Q: Most undergraduates follow supply chain management with the intention of joining reputed multinational companies. What is the expected quality level from such individuals?

Speaking in that companies are not actually seeking candidates who possess a degree in supply chain management and who know how to work out equations, but are seeking people who know what they are doing and are armed with the best set of skills. University is more getting your mind ready to grab and process information, and give solutions. Even though that is one of the key things that companies look for in fresh undergraduates, the possession of soft skills completely overwrites everything. The ability to communicate, convince and engage,

is what companies are seeking. There is also a lesser amount of inventions in supply chain today. That is actually the biggest challenge that we face in the industry. It is because we do not work with the machines. Undergraduates should also have the potential to work on presentations in the corporate level apart from strong team work and leadership skills.

People can play different roles, so it is completely a wide range of characteristics and skills that companies require from a certain individual.

Q: The youth in a country can do wonders in the future world. What is your message to the youth in Sri Lanka?

A: The phrase "never give up" is indeed something that the youth need to embrace if they are starting a professional life, because you will face so many challenges but will need to have a specific plan in terms of where you want to go forward as a professional. You also have to enjoy whatever that you are doing; It is the only way you can succeed in life and obtain a perfect match! Never ever pursue money, because money and income come as a consequence of how good you are and how much you enjoy doing what you love.



ARTICLE

e-Logistics and Environmental Responsibility

Nowadays, many organizations have understood the importance of easy access to information, quick responses to customers and faster delivery of products & services in competitive rivalries. This led to the need of developing and applying e-logistics into day to day business operations. At present, many modern organizations are heavily investing to develop infrastructure and supporting processes to facilitate e-logistics. However, as a fastgrowing field, e-logistics has a responsibility towards the natural environment from the perspective of materials movements and supply chain activities. These businesses must ensure the sustainability of the environment by assessing the trends to follow and setting up policies to implement which support e-logistics to become more effective and efficient in the global arena. This article is to discuss the environmental responsibility based on two main aspects, as forward and reverse e-logistics.

The technology plays a major role in e-commerce and e-logistics when delivering information within and among companies and with various stakeholders. These technologies are very much useful and frequently used by modern organizations to facilitate day to day businesses. The most common technologies can be listed as follows,

- 1. Bar coding and scanning
- 2. Wireless Technology
- 3. Intranet and Extranet
- 4. Enterprise Resource Planning
- 5. Decision Support Systems
- 6. Geographic Information Systems
- 7. Global Positioning Systems
- 8. Shipment and package tracking systems
- 9. Electronic Data Interchange among carriers, shippers and customers
- 10. Data warehouses and data marts
- 11. Electronic signature technology
- 12. Web-enabled relational databases

One type of these technologies or an integration of two or more of these technologies have provided a radical change in the logistics function of an organization in the last few decades. Therefore, the influence of these technologies towards the environment is significant with the forward and reverse e-logistics.

Forward E-Logistics and the Environment

The impact of some major e-commerce activities and systems on the environment is required to discuss in related to forward e-logistics. These can be discussed in the perspective of Procurement, Inventory Management & Warehousing and Transportation & Delivery Management.

Procurement

Paper consumption has reduced through some systems like internet-enabled procurement software and this has supported to minimize waste by making a positive impact on the environment. Many researchers have also identified that the increase use of paperless transactions appears to be an energy saver. Using the technology, the transaction efficiency of the records is high and it automatically saves a significant amount of resources to complete that processes. However, one negative impact of e-commerce is the increase of energy consumption and the technology waste that threatens the environment. Electronic hardware disposal considered as one of the fastest growing waste streams and some reports highlight that approximately 15 million personal computers are thrown away each year in the United States.

Inventory Management and Warehousing

Inventory Management is one of the major areas which occupies e-commerce for aggregation, postponement and sharing information. In aggregation of e-business, it allows companies to keep lower level of inventories at geographically different retail shops. This minimizes the requirement of more warehouses, energy consumption, safety stocks and improve better communication with suppliers and buyers. However, it can be expected that transportation of goods and services to further locations may have a negative impact on the environment rather





than short distance transportation. In postponement, the businesses receive customer orders through internet which enables for postponement of assembling of goods. Lower level of inventories result in lesser holding costs in terms of lower storage costs, spoilage costs and obsolescence costs. This supports the low energy consumption, which creates positive impacts on the environment. Sharing information requires a high investment in infrastructure development which consumes more energy. However, companies put effort to balance this by using one-time investment to minimize cost and waste.

Transportation and Delivery Management

With the advancements of technology, the basic model for electronic exchange has evolved to various boundaries and created managerial flexibility. Many shippers and carriers can match shipments through these web-based transportation software which facilitates to negotiate prices and services. The involved parties are beneficial in



minimizing the amount of energy used to make decisions about matching the shipments physically. As a result of aggregation of warehouses and centralization, it may increase the cost of outbound transportation. Increased transportation costs mean this creates more energy consumption and air emissions.

Reverse E-logistics and the Environment

Reverse logistics has the goal of retrieving some value from the returned items as well as being environmentally conscious when considering the disposal of returning items. Continuous environmental pollution occurred due to business practices may enhance the awareness of environmental-friendly reverse logistics. The focus of reuse, remanufacturing, recycling and reclamation are essential in the greening of industry and environmentallyconscious business practices.

Waste disposal of materials and products can be minimized by increasing the efficiency of the secondary markets which facilitate recycling and reuse of materials. This effort can extend the use of these materials and minimize the environment impact. Quick, easy and reliable information which exchange through the internet can enhance the efficiency of these services. Numerous websites are available now for material reuse and exchange. They work and exchange industrial waste, electronic waste, glass, textiles, wood, and even hightech equipment. The internet has made this process easier with guick and accurate information dissemination and frequent communication among involved parties. Excess inventory, waste by-products, used equipment, re-manufactural goods and returned products can all be



managed through the internet media. Some companies have designed internet-based markets for surplus materials where raw materials which can no longer be used in production. This system provides great savings on raw materials which has a positive impact on the environment. Further, some online shopping guides provide instructions to customers on environmentallyfriendly products and services. Internet-based company networks, which are concerned with ecological and economical innovations along the added-value chain, also contribute in safeguarding the environment.

The internet is an excellent business platform which enables companies to understand, communicate, match and negotiate their unique requirements in an accurate, up to date and faster exchange. Most important application of this exchange is minimizing the waste and energy. One company's waste can be a raw material for another company's production. Many barriers to business have been removed by e-logistics and has brought many buyers and seller together at a lower cost.



Kalpana R. Ambepitiya Lecturer in Marketing and Entrepreneurship Department of Management and Finance General Sir John Kotelawala Defence University

INTERVIEW

A NON PROFITABLE MASTERY OF ASSISTING THE VULNERABLES

SUDATH MADUGALLE

Deputy Director General, Sri Lanka Red Cross



As per your view, how does humanitarian logistics work in Sri Lanka during the time of a disaster?

A: Humanitarian logistics is the process of planning, implementing and controlling the efficient, costeffective flow and storage of goods and materials, as well as related information, from the point of origin to the point of consumption, to alleviate the suffering of vulnerable people. In Sri Lanka, everybody is willing to support the affected people immediately after each and every incident/disaster and they usually tend to focus on emergency relief services In other words, first respondents are from the affected or nearby community. Ordinary Sri Lankans are helpful and generous but are not adequately aware of emergency response. For example, they tend to send in items of less relevance or usage to the disaster in question. They are not systematic or trained in relief operations as against the disaster management professionals.

In its approach to a disaster, Sri Lanka has more systematic and effective measures in place, which functions from national to grassroot levels. At the national level, the Ministry of Disaster Management is mainly responsible for the management of a disaster, while Disaster Management Center leads the coordination and operational role in the pre-, during and post- disaster periods. At the district level, the District Secretary acts as the prime agent in the respective district. Then there are the Divisional Secretaries who oversee the Grama Niladharis (heads of the lowest administrative unit) acting at the ground level.

The National Disaster Management Coordination Committee (NDMCC) that functions at the national level and the District Disaster Management Coordination Committee (DDMCC) acting at the district level, are the mechanisms that link all actors engaged in humanitarian operations. The latter, headed by the District Secretary, convenes representatives from the Disaster Management Centre, Health Department, other relevant government agencies and, the Red Cross and any other available NGOs. This committee facilitates the decision-making process on the actions and means necessary by different actors, to support the people affected by disasters.

Q: Generally, who are the main parties involved when it comes to fulfilling the benchmarked performance in humanitarian logistics activities?

The Sri Lankan disaster management system functions on three levels, namely the national level, the district level and the divisional secretariat level. At the national level the Disaster Management Ministry, the Disaster Management Centre, the Health Ministry, other Ministries relevant to the type and/or intensity of the disaster, and the Red Cross are the major actors, while UN-agencies, INGOs and local NGOs also assist at various levels.

It is noteworthy that the Red Cross functions at all levels due to its presence island-wide.

Q: What is the role of media in the field of humanitarian logistics?

A: The media has a very important role to play. First, during the pre-disaster periods, they can contribute significantly by creating public awareness of what action to take during a disaster and how to prepare to respond disasters effectively, through regular awareness programs. Secondly, they can give out effective early warnings before a disaster while they can disseminate important messages during one; these are very critical roles for them to play. These roles can be crucial in saving lives.

However, the practice of the media organisations of collecting and distributing relief items is unadvisable. They may distribute collected goods along the main roads as is usually witnessed and may not contribute properly to the relief efforts; that would also mean that the relief items are not received by the most vulnerable communities affected. Then there is also the issue of these organizations not being held responsible or accountable for the goods collected or distributed; for instance, some of the items such as dry rations and water bottles

may have expired while other items such as clothes may



have been already used. Also, when these organisations attempt the distribution of items collected, they may hamper the smooth running of relief operations of the government authorities and the humanitarian agencies while it may also result in an unequal distribution of these items among the vulnerable.

But in a humanitarian spirit, the media can always encourage and direct the public to donate items necessary to the disaster management center

or any other humanitarian organization like the Red Cross and other organisations who are well trained in humanitarian logistics.



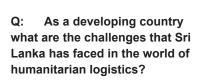
A: At the international level, it is common to find the developed countries well prepared to face any contingency as the authorities possess more precise information related to the disaster. This has come more about with the state-of-the-art equipment and early warning systems especially in the meteorology departments. However, Sri Lanka as a developing country lacks these facilities and hence the authorities may not have sufficiently accurate information.

Even when the authorities are availed of such information, the systems used to convey the message do not carry the information to the general public quickly and clearly, in some instances. This inefficiency is often witnessed during disasters sometimes leading even to the loss of more lives.

Another fact is that in Sri Lanka even if the warnings are conveyed in the proper manner there is some resistance from the vulnerable people to move away from their homes and livelihoods. They sometimes remain irresponsibly adamant and do not move to safer locations. These facts mentioned amount to the major differences that we observe in Sri Lankan context when compared with the international level.

Furthermore, I wish to underscore

the importance of key element of planning any humanitarian logistics operation - the field assessments. Developed countries have trained staff with IT capabilities in the field who give quick assessments vital to humanitarian operations.



As I mentioned earlier, our country lacks sophisticated equipment necessary to generate proper warnings and information. There are issues with coordination where I feel that we should liaise and coordinate more not only with the government authorities and NGOs but also with entities such as the media and cellular companies, and the general public. The cellular companies merit special mention as they can disseminate critical information to those affected or potentially vulnerable segments of the public.

Further, it is important to note that humanitarian logistics will succeed only when a variety of specialist groups such as Disaster Management Center, Health authorities, Meteorological Department, Geological Department, and the SLRCS and other NGOs are brought together. Their combined effort is vital for any successful humanitarian logistics operation. However, there is much room for improvement when it comes to this aspect in Sri Lanka.

More attention should also be directed to preparing and responding to slow on-set disasters like drought situations. We also have to prioritize assessments, as planning relies heavily on such assessments.

Q: In certain circumstances the Sri Lankan armed forces collaborate with humanitarian logistics. In which ways have they improved the efficiency and effectiveness of the operational activities?

It is the general practice of A: any country, to call for the support of armed forces when a major disaster has taken place. Similarly, in Sri Lanka we are assisted by a very capable well trained and disciplined army whenever it is requested. Usually the Disaster Management Ministry requests the Ministry of Defence to deploy forces during a disaster of a scale that warrants their deployment. Significantly, the forces have the capability to muster a large number of soldiers who are willing to work around the clock, within a short period of time.

Q: It is clear that there is a noticeable gap between humanitarian logistics carried out in developed countries compared to Sri Lanka. As per your opinion what should we embrace from them to improve our operations?

A: It is vital that we observe and learn from the humanitarian logistics of developed countries. We can take steps to gather new technologies and procure equipment, train people to use new technology and apply these in our humanitarian logistics in a manner suited to our conditions.

It is also imperative, as I mentioned

earlier, that we focus on developing better field assessment capabilities as they are key in any humanitarian operation. We should also lay



emphasis on training community members in First Aid so that they may act immediately on the ground.

But we must keep in mind that Sri Lanka is still a developing country with meagre resources when compared to the developed countries. It is not possible for us to allocate and tie down a large number of resources and labor in anticipation of a possible disaster because it may not actually take place.

Do you think that there is a sufficient prominence and recognition given to humanitarian logistics in our country?

It is common for people in Sri Lanka to talk about a disaster when it is actually happening or in the immediate aftermath, but not consistently. We need to focus more on institutional and community preparedness during peach/no disaster time to strengthen human, material, financial and technological resources. Hence, we need to engage in a continuous process of discussions and debate. Of course, we can introduce a training program to improve the awareness of humanitarian logistics but it will not gain sufficient prominence and recognition without consistency. This apathy is unfortunately the present situation in our country.

A: Firstly, we need to create awareness of and impart knowledge about disasters; specially disaster preparedness and response better. We can even focus on school children by including it as a subject in our curriculum, as it is very important for our younger generations to be aware of this field and know what to

What suggestions would

you like to recommend as a

professional to enhance the

humanitarian logistics in our

"You should keep in mind that humanitarian logisticians are essentially different, because they work selflessly with the interests of vulnerable people at heart. They should be able to win the hearts and minds of the most vulnerable communities that face these disasters."

do in the incidence of a disaster and also what actions need to take to reduce the effects of disasters. Also. it is a fact that the parents of these children will gain a basic knowledge on disaster preparedness, response and mitigation, as children tend to make the parents aware of what they learn. Hence we have to create this awareness from a very young age to develop culture of preparedness. It is critical too that we get the media to be actively involved in such awareness programs. In addition, we could improve on passing the knowledge on humanitarian logistics by creating small units such as village committees in every village, where these topics will be discussed, and basic trainings such as how to assist in assessments, First Aid and camp management are delivered.

As an expertise in the field, would you like to share some words of motivation to our future logisticians who are interested in humanitarian field?

You should keep in mind that humanitarian logisticians are essentially different, because they work selflessly with the interests of vulnerable people at heart. They should be able to win the hearts and minds of the most vulnerable communities that face these disasters. Also, mastering humanitarian logistics is a continuous process that cannot be done overnight. The systems used in humanitarian logistics is subject to continuous change and therefore it is important that you keep abreast with these systems. Also, as future logisticians, you must improve your knowledge and skills in humanitarian logistics during your free time. In the meantime, you should associate current humanitarian logisticians within the country, in your district or even internationally renowned professionals, to share their experiences and learn from them.

Finally, I appeal to all those engaged in humanitarian logistics to convene an annual forum to discuss and share their expertise and experiences with the aim of improving this profession to serve the most vulnerable people.

ARTICLE

The growing logistics hub in the South Asian Region

The Port of Colombo, which was known as "Kolomtota" in early 14th century was first used by merchants from China, Persia and India who came through silk route to trade famous spices of the country. In 1505, the Portuguese stepped into Ceylon by accidently sailing into "Kolomtota" and since then, it was under the hands of Portuguese till the Dutch gained the control. The Dutch in 1656 followed by British in 1796 gained the control and converted "Kolomtota" into a sheltered harbor during their periods of ruling.

After gaining the independence in 1948, the port expansions occurred and the Queen Elizabeth Quay was constructed with 16 alongside berths, transit sheds and warehouses. In 1980's the port underwent major constructions and transformed to handle containerized cargo with cranes, gantries and other staples of a contemporary container terminal.

Today, the Port of Colombo has become the main seaport in Sri Lanka and considered as one of the busiest seaports in South Asian Region. Serving mainly as a container port, it was ranked as the 30th in the world in 2014. When considering the location of the port, it is geographically located in the middle of the main East-West shipping route. The port's natural location helps to provide connections to the trade in the Indian subcontinent as it links Far East with Africa, Europe and the East Coast of United States.

Current Terminal facilities

Currently, the Port of Colombo is having 4 terminals (including South Port) namely, Jaye Container Terminal (JCT), South Asia Gateway Terminal (SAGT), Unity Container Terminal (UCT) and Colombo International Container Terminal (CICT).



Facilities of the Terminals

| • 4 Container Main Berths & 2 Feeder Berths • 1,292m of Quay Wall + 350m of Feeder Berth Quay Wall. • 12,0m - 15,0m Dredged Depth • 20 Nos. Quayside Container Cranes (Panamax & Panamax) • 59 Nos. Rubber tired Container Transfer Cranes • 10 Terminal Tractors & Trailers • 10 Terminal Tractors & Trailers • 24 Nos. Top Liffers • 45.5 Hectares of Container Terminal Area • 53,990 TEU Dry Container Stacking Capacity • 1,548 TEU Reefer Container Stacking Capacity • 1,5000 Sq. m of Container Freight Station Area • Ship Planning System with Electronic Bay Plan Transfers |
|--|
| Table: Terminal Facilities |



Port Facilities

The Port of Colombo is having more facilities to provide their clients a better service. Electronic Data Interchange (EDI), General Cargo Services, Multi Country Consolidation (MCC), Bonded Warehousing and Entrepot Trade are some of the facilities offered by the port today. EDI facilities include the facilities for container data, stacking status and container movement history inquiries, containers not in regular yard and scheduled for discharging and loading, monthly and daily vessel schedule, daily received and delivered container list, arrival stowage data of a calling vessel as well as cargo manifest, ship loading, container receival and container delivery data.

As a leading container port in the region, the facilities for handling cargo plays a major role when stating its position as a logistic hub in the region. The port provides services for LCL (Less Container Load) as well as FCL (Full Container Load) cargo delivery operations while having several CFCs (Container Freight Stations) to handle general cargo, dangerous cargo and transshipment cargo. The Port of Colombo provides MCC facility which is a combination of multiple destination transshipment cargo. What happens in MCC is, the cargo comes in a container is transshipped to desired destination through several containers after rework operations at the Port

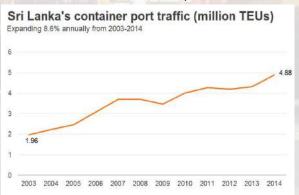


Figure: Sri Lanka's Container Port Traffic (Million TEUs) Expanding 8.6% annually since 2003

of Colombo. Also, SLPA has provided warehousing facilities to handle MCC cargo at the warehouses at the Bandaranayake Quay (BQ) area in the Port. The MCC operators can also handle MCC cargo at a designated Sri Lanka Customs Bonded Warehouse outside the Port. The containers pre-declared as MCC at the discharging Terminal at the Port of Colombo are brought in and destuffed at the requested warehouses at BQ.

According to World Shipping Council statistics, the Port of Colombo became the busiest container port in South Asia handling 4.31 million TEUs in 2013 putting it ahead of India's largest container port, Jawaharlal Nehru (4.12 million TEUs in 2013). In 2014, it increased up to 4.9 million TEU of containerized cargo. In 2015, the port exceeded 5 million TEUs for the first time in history, handling 5.1 million TEUs of containerized cargo.

The port handles domestic cargo, transhipment cargo



as well as containerized cargo. Most of the transhipment cargo that comes from the European subcontinent use the Port of Colombo as their transhipment hub. When considering the total container throughput which the port is having, transhipment cargo accounts for 75% out of the total.

With the facilities and the services it offers as a container port, we see that the demand it is having for international logistics services is growing rapidly. To cater that demand, the Port launched Colombo Port Expansion Project (CPEP). Under that, the South Container Terminal has commenced its operations already as the first terminal in South Asia which can accommodate mega-sized vessels. Under this project, the East Container Terminal will come into operation in the near future while the West Container Terminal at its planning stage. It is expected that the container handling capacity of Port of Colombo would be increased up to 12 million TEUs per year, making it one of the world's largest container ports with this project. Another important fact is that, the per-container cost for exporting and importing to and from Sri Lanka which is respectively US\$560 and US\$690, is much lower than the South Asian average. Therefore, it is expected to attract a huge number of liner and barge companies to the country helping Sri Lanka to achieve the economies of scale required to succeed in the logistics industry. Hence, it is obvious that the Port of Colombo which has already reached a milestone of its journey of becoming the main logistics hub in the South Asian Region will reach its destination in the near future.



Oshani Kumarasiri Intake 32 Undergraduate BSc in Logistics Management

- Ryunosuke Satoro

INTERVIEW

Path to a Successful Career

KINGSLEY ABEYWICKRAMA

Managing Director, APL Lanka Ltd / Education Officer, ICS(UK) SL Branch

"You cannot direct the wind, but you can adjust the sails."

Mr. Kingsley Abeywikrama is the current Managing Director of APL Lanka Ltd, who has 20 years of local and overseas experience with shipping lines such as CMA-CGM, HMM and MSC. He is also the education officer at ICS(UK) Sri Lanka branch and also shares his knowledge on the shipping industry as a guest lecturer of University of Colombo, University of Moratuwa, The State Ocean University.

Department of Management and Finance General Sir John Kotelawala Defence University

CINEC, Aquinas,

His view that an

undergraduate

SLFFA academy &

Shipper's Academy.

should acquire skills that are hard to get from their education institute and how they should always think out of the box, lead us to take it upon ourselves to dive to the industry of shipping via his advices given to us as undergraduates to shape our career in the logistics industry.

Q: As a visiting lecturer, what are the opportunities that are available in Sri Lanka on academic

courses in the shipping industry?

A:Unlike in the past, it is

fortunate that we have

many options available

to build a career in

Starting from the

the shipping industry.

development in terms of the availability of logistics related courses. In contrary, the private sector also has vitally developed in terms of various opportunities available for student. Some of these universities are even affiliated with overseas universities who functions on solid terms in the industry of shipping which brings an enormous benefit to the student to recognize the international market as well. There are also diploma courses, which are endorsed by the government through Director General of Merchant Shipping (DGMS), delivered by several private institutes.

Being a top level manager in a large organizations, you must have hired many employees in your career. In general, what are the skills and knowledge that you have come across, that is lacking

The more evident area that is lacking with most of the recent crowd is the inability to understand the bigger picture of the company or industry. If I say more specifically, the interns or trainees of nowadays are confined only to a specific area of their concern without trying to learn about the overall picture of the organization. In other sense, they tend to avoid 'why' questions by just going with the flow and not concerning 'why it has happened?' or "why do I have to perform this task in this way?". Many

in a potential candidate? are reluctant to think out of the box and discover the other parts of the puzzle.



"As the industry of shipping is interconnected and needs a huge manual involvement as well. it is important that the interns/trainees understand how one team is dependent on the other without having their focus only on one aspect. They should divert their mind to be able to understand all the aspects which the organization that they join is involved in at least to a certain extent."

I personally don't see this situation as a dead end since it can be overcome through right training.

- It is being suggested that the education minister of Sri Lanka is hoping to include logistics management as a basic school subject. What is your opinion on this regard?
- I believe that's a good move. Because in our school curriculum in contrast to other countries we lack subjects that are directly related to job markets. I believe that the curriculum should be modified in a way so that when a student leaves the school, he or she should be ready for a job. Our country's education system runs according to a particular system which has been there for generations. This has to be changed since a school leaver in Sri Lanka is not suited for a job without further education on a specific area. So, if logistics

management is incorporated to the school syllabus in such a manner that it would help a student to specialize in one area, I believe it's a brilliant move by the education ministry.

- Does the education level of the undergraduates and interns who follow logistics management comply with the organizational requirements both theoretically and practically?
- If I take it in general, there is certainly a gap to be filled since we have been interviewing many students coming from both state and private universities. Most of these students have a sound theoretical knowledge. But they lack the practical side of the education comparatively. So, my suggestion is that it is important to get in touch with the industry and know the requirements of the industry. Of course it is important to have an academic and practical balance but at the same time industry demands should also be addressed. The industry of shipping is very dynamic, it tends to change very fast. Every year, maritime laws and regulations tend to change. Almost every month digitalization is changing the way how shipping is done. So it is important to accommodate these changes in the logistics management courses that are offered in both theoretical and practical basis for them to be useful and for the ease of the interns to fulfill organizational requirements.
- Q: What qualities do you expect from a prospective student who wishes to pursue their career in the shipping industry?
- One thing for the interns to understand is to see the overall picture as I mentioned earlier. In addition to technical knowledge. soft skills such as right attitude, communication skills, networking skills etc too are essential qualities that are expected form an intern or trainee hoping to join in the shipping industry. An intern should also have long and short term goals simply

because companies who pursue goals tend to prefer recruiting people who are goal oriented. Also, the person who is joining a company at ground level should have an idea on where he is joining, their vision and mission, what they are trying to achieve, so that he can identify whether his personal objectives comply with the company that he is willing to work in and also the shipping industry as a whole.

- Do you think our young graduates can fit into the international job market? What countries have more job opportunities?
- Sri Lankan students will definitely have good prospects in other countries as most of the Sri Lankan students are blessed to be from a country which is a logistics and shipping hub. The exposure our students get in this island is very much vital and important to be applied in other countries. Also, with our level of literacy, level of English and the exposure a student gets tactically and academically. they will have a bright future in the international market as well. It has already been proven as many Sri Lankan personnel are currently holding very high positions in the international market. They have earned a very good impressions in the minds of shipping and logistics giants which will give Sri Lankans an edge over the other countries. I have personally noticed Sri Lankans holding impressive positions in countries such as UAE, Pakistan, Bangladesh, India, Malaysia, Singapore, Oman, Djibouti, Africa, South Africa, Indonesia, Thailand, Fiji, Australia, Canada, USA, Denmark etc.
- Q: As a lecturer who works with most of the undergraduates who are struggling to shape up their career, are there any specific advices that you would like to share with them?
- One advice that I would like to give is not to restrict their mind set to

a specific area. In other words, if the undergraduate has done a logistics based degree, he might think that he should only work in a freight forwarding company which is not true as logistics is not restricted in to that specific area. Also, they should get on with the opportunities that they receive without waiting for the best thing to happen for them. Another advice I can give is to always keep yourself updated with the current affairs in the industry.

Q: Do you think logistics related professional qualifications available in Sri Lanka are in a satisfactory level? Is there any gap to be bridged?

A: I think there is room for improvements. I do believe that at the moment there are enough certificate level, diploma, higher diploma courses and degree level programs based on logistics management. But, when it comes to the next level that is post graduate level, I see that there is a gap to be bridged. Sri Lanka does not have many post graduate level offers.

Q: What is your message to those in the logistic field within the path of higher education as well as the industry?

Brighter side of the story is that the logistics industry is developing and expanding at a significant rate. At the same time, it is developing towards the e-logistics platform or towards digitalization. My message to all the students is to take the industry of logistics as a positive and a bright industry to step into and at the same time to shape up their knowledge and practical side of experience towards the future of logistics. Also by looking at the way the industry is changing, along with the practical knowledge, they should have the right mindset and soft skills such as change management and an optimistic attitudes towards the dynamics of the industry. Always be innovative and be a team player and that's the key to success.



ARTICLE

JIT Philosophy Exceeds the Concept of Inventory Reduction

ust in Time (JIT) is an all-encompassing philosophy found on eliminating waste. Waste is anything that does not add value. A broad JIT view is one that encompasses the entire organization. Lean manufacturing takes the concept of JIT and reexamines it from the perspective of customer value. The first step in the lean manufacturing process is to consider what aspects of the product add real value for the customer. Lean manufacturing and JIT are often treated as two different phrases for the same thing, however they are not identical concepts. JIT manufacturing is focused on efficiency, while lean manufacturing is focused on using efficiency to add value for the customer. JIT manufacturing can be practiced on its own or as one step in the lean manufacturing process. Broad view of JIT is that entire organization must focus on the same goal serving customers. JIT is built on simplicity and focuses on improving every operation. All problems must be visible to be identified and solved in JIT.

JIT is based on three elements: Just in Time Manufacturing, Total Quality Management (TQM) and Respect for People. JIT manufacturing focuses on production system to achieve value-added manufacturing. TQM is an integrated effort designed to improve quality performance at every level. Respect for people rests on the philosophy that human resources are an essential part of JIT philosophy. JIT Manufacturing is a philosophy of value-added manufacturing and achieved by inventory reduction, Kanbans & pull production systems, small lots & quick setups, uniform plant loading, flexible resources, and efficient facility layouts. Less amount of inventory is better because inventory hides problems. Small lots mean less average inventory and shorten manufacturing lead time. Small lots with shorter setup times increase flexibility to respond to demand changes. A "level" schedule is developed so that the same mix of products is made every day in small quantities. Leveling the schedule can have big impact along whole supply chain. Effective facility layout is an essential part of JIT manufacturing. Cellular Manufacturing and U-shaped lines are often used in facility layouts. Workers are multifunctional in the JIT system. Workers assume considerable responsibility, cross-trained to perform several different duties and trained to also be problem solvers.

Respect for people is the most important component of JIT philosophy. The role of employees includes:

- Genuine and meaningful respect for associates
- Willingness to develop cross-functional skills

- Actively engage in problem-solving (quality circles)
- Everyone is empowered
- Everyone is responsible for quality: understand both internal and external customer needs
- Associates gather performance data
- Team approaches used for problem-solving
- Decisions made from bottom-up
- Everyone is responsible for preventive maintenance

Therefore, the role of management is limited to build a culture of mutual trust. They serve as coaches and facilitators, support culture with appropriate incentive system including nonmonetary, responsible for developing workers, provide multi-functional training and facilitate teamwork. Supplier relationship is an essential aspect of JIT. The organization should pay attention to the following areas:

- Use single-source suppliers when possible
- Build long-term relationships
- Work together to certify processes
- Co-locate facilities to reduce transport if possible
- Stabilize delivery schedules
- Share cost & other information
- Early involvement during new product designs

There are many benefits of JIT including reduction in inventories, improved quality, shorter lead times, lower production costs, increased productivity, increased machine utilization, and greater flexibility. However, JIT is not suitable for many industries or organizations as there is a high risk of stock outs (critical medical supplies) and may require new systems. JIT is not something that can be done easily and overnight. It requires careful planning. JIT often requires a substantial change in production culture.



Wasantha Premarathne Senior Lecturer Department of Management and Finance General Sir John Kotelawala Defence University

INTERVIEW

INSIGHTS OF COURIER SERVICE INDUSTRY

DIMITHRI PERERA

Country Manager, DHL Keells (Pvt) Ltd

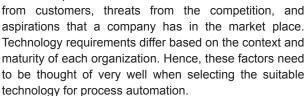
As the demand for courier services increases exponentially, retailers and the industry players at large are working to accommodate a rising service sector. Technology and innovative solutions play a pivotal role in meeting these demands in this sector. So, to unfold these insights of the courier service industry we interviewed Mr. Dimithri Perera, the Country Manager of DHL Keells (Pvt) Ltd. As the Country Manager, Mr. Dimithri is responsible for managing, developing and growing the DHL express business whilst providing direction and leadership to ensure profitable growth, satisfactory cash flow, market leadership and the establishment of industry leading service standards. Mr. Perera's working experience spans 25 years in multiple industries including Office Automation, Automobiles, Advertising, Apparel and logistics. He joined DHL Express in 2004 and headed the Commercial function until 2014 until he assumed the role of Country Manager. Mr. Perera currently serves the committees of the Ceylon Chamber of Commerce and the Sri Lanka Shippers Council and was the former President of the Sri Lanka Association of Air Express Companies from 2011 to 2013.

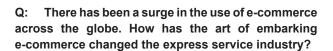
Q: As per your professional opinion what are the major drivers of profitability and sustainability in the express service industry?

- A: The international express service industry runs on a highly operations driven model, as it relies on vehicles, planes, facilities, equipment and people to move packages across the world. The industry is asset heavy, requiring the need for it to be performing at optimum capacity every time to be cost effective. It is also quite labor intensive with high labor costs. Hence, there is a need to ensure that operational costs are managed by making productivity and efficiency improvements in all activities whilst driving volume/shipments. On the other hand, the industry is also impacted by the volatility of global fuel prices, exchange rates, and cost structures in different countries. Hence, it is very important to understand the inner workings of these variables and its impact to the business.
- Q: Automation of business processes is the most common trend in the express service industry. As per your thoughts, what are the key criteria that should be considered when selecting a suitable technology to customize your services?
- A: Automation is generally required either to overcome

certain challenges faced by a company or to stay ahead of competition and provide more value to customer needs. The shift towards automation for repetitive processes can be quite simple and can help companies achieve higher efficiencies while reducing costs.

However, companies have their own business processes which are unique to them and one that is inherently advantageous to them. One has to keep in mind that a company will go through a process evolution based on the technology that is available, its current capabilities, demands





A: Typically, a customer's online shopping experience will largely depend on what happens after they click the order button. Convenience, speed of delivery and the speed of returns are key factors that online shoppers have come to expect as a standard from their e-shopping experience. Express service providers play a major role in enabling this shopping experience.

The explosion of e-commerce across the globe has resulted with many opportunities for the express industry due to specialized offerings in speed, transportation, handling, customs clearance and multiple delivery options which are critical in meeting a customer's expectations, especially in distance selling. As per a Mckinsey Study conducted in 2015, cross border e-commerce accounted for 15% of total ecommerce business overall and is expected to grow rapidly at 25% per annum until 2020, and this is twice the growth of the domestic ecommerce market at present.





The future of e-commerce will become more complicated, and more competitive. Companies will have to be more and more innovative in order to succeed. It is really about working out what our customers will need next. The e-commerce landscape is changing so fast that most companies find it difficult to anticipate how customers' expectations will change in the future. The most successful companies adopting e-commerce platforms will see themselves as technology experts as it is a key factor that brings convenience to online shoppers.

Q: Introduction of drones has brought dramatic changes in the courier service industry in last mile delivery. What is your opinion about the introduction of drone technology in delivery services in Sri Lanka?

A: Unmanned Aerial Vehicles (UAVs), or drones as we call them, are getting popular as a delivery solution to send critical packages safely to customers and has evolved drastically for commercial and industrial purposes. The safe and rapid delivery of parcels using autonomous aircraft will open up the chance to offer new logistics services.

DHL globally has been running its own research project since 2013 regarding safe interface between drones and end-customer. In the latest trial run, the delivery of urgently needed goods, such as medicines, was tested in the Bavarian village of Reit im Winkl. A safe interface between the Parcelcopter and end-customers was

successfully trialed by the DHL group showcasing that drones can be integrated into logistics processes.

It is evident that drones will allow us to create real value addition in the field of logistics and offer people a new kind of access to the flexible and, most importantly, rapid dispatch and delivery of goods.

If drone technology is to be introduced in Sri Lanka, the usage of drones for courier needs should be in compliance to existing rules and regulations of the government, as well as should be conducted in a manner that is, above all else, safe, ethical and respects the privacy of citizens.

Q: As the economy expands, businesses grow, both internationally and domestically. In which way does the economic growth affect the express service industry?

A: The global economic slowdown caused the total world trade and global consumer spending to decline in 2009, as the largest economies in the world went into recession. Consequently, demand for the transportation of packages and parcels diminished, causing industry revenue to plummet in 2009. Over the past few years, the global courier services industry has managed to recover from the global economic slowdown by witnessing increasing growth in volumes compared to slower growth in world trade.

According to IATA (International Air Transport Association),

world trade is still only growing in line with domestic production, but air freight's share of world trade has been increasing during the last 3 years. So, I agree with your statement that as the economy expands, businesses grow, both internationally and domestically. This results in a lot of goods being transported between countries.

Q: Several reports have shown a trend in the increase of airfreight volume. How does the growing air freight traffic provide benefits to courier services?

A: Express operators typically use a mix of both their own freighters as well as commercial airlines to carry their cargo depending on the load factor. When the loads justify carriage depending on the route, they use their own freighters, if not they use commercial airlines for smaller loads. Sometimes both options are used, whichever makes financial sense.

When there is a growing trend in air freight volume, further opportunities are created for express services with the availability of additional capacity for the carriage of cargo. Hence, when the supply of air freight volume increases, there are also opportunities to negotiate lower costs when carrying cargo on commercial airlines.

Q: If airlines tend to establish their cargo distribution systems such as Lufthansa in the future, will that be a challenge in courier business?

A: When Airlines having their own cargo distribution systems partner with courier companies to carry their cargo it can be a support for the courier industry to grow. For example, DHL Express entered into a partnership with Lufthansa Cargo through a joint venture relationship in 2008 to carry their cargo. The JV airline is named Aerologic and both DHL Express and Lufthansa Cargo has a 50% stake in it. The relationship which started in 2008 saw DHL Express leasing eight aircraft from Lufthansa Cargo at the beginning and still benefits from it with an expanded fleet.

Q: Through your experience, what challenges do the players in this industry encounter?

A: There are certain regulatory hindrances that the industry is facing which does not complement the speed of International shipping. Some regulations are archaic in nature and not up-to date with the rest of the world. In such instances shippers face difficulties in competing in the global market place.

High operational cost and slow volume growth in a price competitive market is another fact that some industry players are facing. When you get to a point where no further cost improvements could be done from reaching economies of scale, and your pricing is generally on the lower side, there will be margin pressure on the bottom line. However, having said that there are also successful companies that have achieved "pricing power" over its competitors - the ability to charge prices that reflect the value of their products and services.



"What we do as a service provider helps to connect people and help to improve their lives. We do not simply deliver just parcels and packages but also deliver love, hope, prosperity and joy."

As a professional in this field, what changes would shape up the future courier services industry?

On-Demand Delivery will enable consumers to have their purchases delivered where and when they need them by using flexible courier services. Also when consumer demand for highly personalized products goes head to head with mass production, it would lead to decentralized production and rapidly changing supply chains that will require logistics providers to be fast and flexible to react to changes in time and place of production.

In the recent past, there has been a surge in the use of e-commerce across the globe. The impact of this new form of commerce has been felt in each and every industry, and retailers everywhere want to expand their operations to include online shopping. This new form of retail has brought in a new set of opportunities as well as challenges for companies operating in the delivery

Development towards a sustainable and carbon-efficient courier industry will be a prerequisite to long-term success in the future. Sustainability will not only shape the courier industry, but also decisively influence our common future. Whilst the advent of newer technologies such as Selfdriving vehicles and Unmanned Aerial Vehicles will change the world of logistics and will become essentials in the courier industry, inventions such as 3D printing will pose challenges to it in the near future.

Young individuals look at the world with fresh eyes. What is your advice to those individuals who wish to enter into the industry?

A: This is an industry that supports global trade and it is the engine that drives economic growth. Logistics fuels that engine. The express industry is a highly operational business but one that goes very far to meet a customer's expectations. What we do as a service provider helps to connect people and help to improve their lives. We do not simply deliver just parcels and packages but also deliver love, hope, prosperity and joy. The industry is evolving quite quickly embracing new technology to stay abreast of customer expectations. In order to make a difference, individuals working in this industry will need to be futuristic, innovative, flexible, and hardworking.



ARTICLE



"CPSTL Smart Mapping Application": Total logistical solutions for Sri Lanka's downstream petroleum industry

The vision of the Ceylon Petroleum Storage Terminals Limited (CPSTL) is to be the most efficient petroleum terminal operator in South Asia. It is responsible for 90% of Sri Lanka's petroleum storage and distribution. Their operations include tanker/tank farm operations, island-wide product delivery by rail, road and pipeline, whilst providing of ERP and laboratory services for the whole industry. Its operation, which spans from Kankasanthurayi to Dewundara is accomplished via 02 oil terminals and 12 island-wide bulk depots.

Requirement for an independent platform

CPSTL utilizes its own tank lorry fleet and a fleet of hired tank lorries. The distance from CPSTL plants to customer

locations is a very important aspect of the logistical operations. The distance is utilized for the following purposes.

- Determination of trip time
- Determination of overtime and batta payments for CPSTL drivers and porters
- CPSTL tank lorry's fuel consumption
- Hired tank lorry transport payment

There were various disputes among the different parties with regards to distance. This was due to the absence of a scientific

method of determining distance. CPSTL Smart Mapping team analyzed the business process to come up with a solution, in order to measure distance. The solution would be an independent platform, where all the parties would agree upon.

"CPSTL Smart Mapping Application" is the result of the above attempts which is based on Google Maps. This application utilizes Google Map's many layers containing satellite imagery, terrain, maps and other features. It stores customer information to assist the logistical operation.

Plotting of locations and routes

Customer locations were identified with the map and satellite views.
Google Street View introduced to Sri Lanka on March 2016, was utilized for available areas. Google Maps has the capability of evolving as per the



rapidly changing road infrastructure. where expressways and development projects have significantly changed the geography of Sri Lanka. Routes are plotted considering the tank lorry accessibility. Google Maps derive a

route dynamically, which is suitable for a one-time journey. The application adjusts the initial route along with the latitude. longitude information. Additional trip time was provided to mitigate the traffic, road condition and hill areas.



Reducing of transport tariff

The implementation drastically reduced the CPSTL transport tariff by reducing the existing mileage, calculated a long time ago. Massive savings were observed

time, transmitted via sensors. The readily available filling station details can be provided to general public via an android or ios application. It is planned to extend the application to Sapugaskanda and China bay

Nuthuralacela Terminal *

ng Auto care filling stat ▼

Get Routes

terminals operated by Ceylon Petroleum Corporation and Lanka IOC

PLC.

It is observed that Sri Lanka has shown a comparatively longer adaptation time for embracing new

where the case Google Maps.

technologies,

is same for Utilizing of this readily available information, especially in the Sri Lankan logistics industry will result in optimized industrial operations and eventually towards sustained economic growth. The various limitations obstructing from reaping the benefits of the technology, need to be overcome by innovations and

technical savvy policy planning.

in the transport tariff, own-use fuel consumption, overtime and batta payments.

The implementation resulted in resolving of a considerable number of payment disputes. It resulted in reconciling and streamlining of customers' deliveries.

Future applications

Fleet Management solutions with Geo-fencing option can be embedded

locations due to remoteness, unclear satellite images and strategically sensitive locations being deliberately blurred. This was dealt by provisioning officers to visit the locations. In some Google Maps, one-way information was not matching with the actual practice. Internal CPSTL road structure and unavailable roads were plotted via Google Map Maker. The road

It was a challenge to identify certain

closure/maintenance information provided by Google Maps, is not sufficient for route planning. This feature would have been vital during the September 2015/May 2016 landslides and May 2016 flood.

System implementation was carried out under heavy resistance from various internal

and external parties. Systematic implementation and overall process transparency assured the continuous implementation.

to the "CPSTL Smart Mapping

Application", accounting to diversions and unscheduled stoppages in realtime. The fuel stocks maintained by customers can be provided in real-

Varuna Gunasekara

Senior Software Engineer Ceylon Petroleum Storage Terminals Limited.

INTERVIEW

Novel Art of Procuring

RUMAL FERNANDO

Head of Procurement, Unilever- Sri Lanka

Q: Who is Rumal Fernando? How do you explain yourself?

A: I am a working mom, and have spent 17 long years with Unilever. I would say it long, not only because of the time spent at Unilever, but also because of the experience that I have gathered in the process and the knowledge that I have been exposed to has been immense, and in many ways unimaginable! My first stint in Unilever was in Customer Development which is commonly known as Sales, and joined as the first female sales manager for Wall's Ice-cream. This was at a time where the sales function was dominated by fine gentlemen of Unilever. Post 1 ½ years' time in Wall's Ice cream business, I moved to the main business of Unilever as an Assistant Key Account manager and for good 2-3 years' time spent looking after the Cargill's food city chain from Unilever end. Next was a move form Sales to Supply Chain department where I had the opportunity to move around many functions within Supply Chain at different intervals and currently I'm heading the Procurement team of Unilever, Sri Lanka. I am also a BSc graduate form University of New Delhi and hold a MBA from Postgraduate Institute of Management (PIM) in International Trade and Logistics.

Q: Supplier relationships are critically important to the health of any business. What is your opinion on this statement?

A: Long years back, relationship between supplier and customer was just limited being transactional, one would place and order and the other would deliver it. I am not wrong if I say it was more or less as simple as that. But, over the years, things have changed dramatically where the suppliers and customers have come together in a closer manner for a bigger purpose and to drive mutual benefit for each other.

Unilever as a company firmly believe in the fact that, our supply business partners are no longer people who will do what we say, but also give their input, expertise, choices, insights, and bring innovations and they are an integral part of supply chain who will partner with us, for a longer and stronger journey. Procurement managers, just as Sale managers are the face of Unilever. Therefore, we have a huge responsibility of building strong relationships and joint partnerships with our vendors. Our job no longer limits to raising of a purchase order and getting suppliers to deliver goods on time. It's about how we partner stronger for a mutually beneficial future. We take our suppliers through many of our agendas and make them a part of our journey, be it exploring together on how well we can cut down cost in the value chain and reduce inventory that we carry at both ends. So it helps to release cash to the business, quickly turn around winning innovations, improve service levels and quality of materials or services supplied and even drive compliance, so we stay within assigned guidelines by aligning to our local and global goals.

Trust me, all these will take so much time and energy, but I must say that we have come a long way with our supply business partners, because we are making them future ready, compliant, while we learn their expertise and they learn from us. Partnerships we create with each other can only make us stronger. It will help in our business agendas and help us to stay profitable in the market place, gain share and satisfy consumer needs. All of these, one alone is not able to execute, but only will come out as joint efforts and as a result of true partnerships we have with our vendors.

For example, in Unilever we take great pride in driving many innovations and activations. When we introduced In-Mold labeled round tubs to pack margarines, we used a brilliant idea which was given to us by one of our key rigid plastics suppliers. Relationships backed with trust is the key in our business and it is the reason for most of the innovations we do. Before it reaches the consumer, our suppliers get to know when we develop formulations and packaging materials with them. We even manufacture our own products through third parties and all the time our suppliers maintain confidentiality. We also do mega activations while placing our trust and confidence in suppliers who are experts at what they do, not only for the success of activation but also for ensuring the safety of participants. All this is possible because we have built stronger partnerships with our vendors and have brought our relationships with them to a different level. So, by all means, for any company to flourish, it's a must that we maintain stronger partnerships with all our supply business partners at all times.

Q: Absence of "visibility" in the supply chain is a key challenge faced by managers in this sector especially in decision making. What are the underlining reasons for this burning issue?

"We all agree that we are living in a world which is always changing. This is well explained by the term "VUCA", which stands for Volatile, **Uncertain, Complex** and Ambiguous."

Whether we like it or not that's the world we live in and something which none of us can really take control over. Basically, uncertainty, volatility and complexity always creates lack of visibility. However, as managers and professionals, our goal should be to minimize risk within the VUCA world to the best of our ability. At Unilever, our supply chain is made out of teams who look after demand planning, material and production planning, procurement, logistics and warehousing and finally with a team responsible for customer service. This entire process needs to be very well interlinked and through this we create visibility in supply chain with available information and also by accessing past trends. In today's world, we are also interlinked through processes and access to data which is available in abundance. We must not limit ourselves in looking only at internal data, but also should capture as much external data as possible, for example on consumer behaviors, competitor trends and benchmarks. Such will eliminate lack of visibility in the system to a greater extent which will enable to take timely decisions.

Also, from procurement perspective, we need to be ready to go beyond converting purchase requisition to a purchase order. Our roles, even without our knowledge, has

expanded from being transactional to strategic. We analyze more data than never before to understand requirements, market trends and we are also vigilant on geo political activities which can adversely affect on materials' prices, currency movement trends etc. There's more information than one can never imagine out there. We need to be willing to know where to access it from, analyze, understand trends and make our own calls. If we are not willing to use the available information, we will surely make decisions late or not make it at all and blame it on the system. Uncertainty is something none of us can eliminate fully and in a way it makes life interesting to some extent. But, if we know the art of living with and around uncertainty, we can beat it and make correct and timely decisions within any

procurement methods used in Sri Lanka and other countries?

A: International or national competitive bidding, direct contracting, open and closed tenders are some of the common practices which we see related to procurement methods widely used across companies. As e-commerce plays an immense role in the west as well as in countries like India, I think we have a lot to learn from them and there's untapped potential there. Using e-platforms such as e-tendering, e- bidding, e- auctions and even epayments are areas where we can venture in to in Sri Lanka. Those will drive more transparency and efficiency while



procurement managers which will help in moving towards being paper-less and helps environment in return. In many of the leading organizations including us, we have adopted ourselves in getting in to these spaces. However, in Sri Lanka, I believe there is so much we can do in this area

- Q: Enabling efficient business through e-procurement is the most upcoming trend in Sri Lankan logistics arena. Do you think that the corporate sector of our country is in an acceptable position to embrace this new change?
- A: I would say that the corporate sector is in a very good position to embrace this given opportunity if there is an abundant support and guidance from the government. Guidance received and trust we place in one another is the key to its success. For example, if importers want to clear their goods, they need to go to customs and various other departments for clearances and in between has to liaise with many people and processes in order to get his requirement fulfilled. This consumes a lot of time and time is money in businesses. The case is similar for an exporter too. Like in many other logistically advanced countries, we need to have systems in place for importers to access a one stop web based portals where you only need to log in and enter the required details and in return importer is guided through the process till the end.

As per my view, our alignment to technology, usage of IT and infrastructure in private sector is at an acceptable level. However, there is a lot more room for improvement in creating visibility. I am sure, any corporate will welcome e-procurement platforms as it makes lives simpler and easier, reduce complexity and lot of time spent in many regulatory authorities can be minimized which will in return help in productivity. Access to internet

and e-platforms can be made easily available in Sri Lanka as we are a nation which is pretty much IT savvy. Trust and reputation of vendors, authorities and customers play a huge role in e-commerce unlike in a normal business transaction where you will not know whom you are dealing with at the other end.

- Q: Logistics is a very dynamic field. What changes that you recommend Sri Lanka to improve the standards of our national procurement system?
- A: Logistics is a large area and we need to understand the way of optimizing its benefits whilst looking beyond obvious. We as responsible citizens need to also look beyond what we can do for today through procurement and logistics field. One example I can bring out from my Unilever experience is driving sustainability though procurement and logistics. Sustainability is a key agenda of Unilever and we are very keen on our processes and initiatives that where we try to reduce our carbon foot print and we are committed to that. Therefore, as a supply chain, we have gotten together in introducing "green" initiatives to become more environmental friendly even in logistics space. We partner with the teams in bringing out opportunities such as the use of hybrid trucks for distribution that minimizes fuel consumption which helps reducing our carbon footprints. We have initiated key logistics models such as hub & spoke, when transporting our products to island-wide destinations. This will not only reduce our transportation millage, but also enables us to service our customers well ahead of time. Also another key area which we are currently looking at is e-biding for transportation lanes. This would help drive optimizing servicing with cost benefits.

There are many more opportunities as such which can be replicated by cooperates, but nationally there must be defined guidelines on ways of working. These will be key enablers of success. In order to improve current system, I think its critically important that we create visibility of good practices within the industry between corporates which will help others to learn. I wouldn't be wrong if I mention that some organizations like us are ahead of many corporates or even of government entities as there is so much one can learn from us. Creating forums where corporate and government sector can sit side by side, understand each other's challenges, difficulties and thereby identifying novel solutions within the group will benefit the industry as a whole.

- Q: What is your opinion on procurement operations as a field for youngsters to build their careers?
- A: I think this is an ideal place to build up yourself, because you get mature and gain a whole lot of self-confidence even without your knowledge. Also, your knowledge expands because, you are constantly in the market dealing with suppliers, looking at market behaviors, trends and analyzing them. Specifically, as a procurement professional, you will always negotiate with people and that builds up your ability to influence people. Most importantly, when you have the knowledge and power to influence people as young individuals, it will bring up your confidence level. With time, you will gain experience & knowledge as well. Procurement is the only link that will enable you to deal with external stakeholders other than sales. In procurement, you learn how to tackle difficult business deals and you will always learn from your failures. Also it will help you to skillfully built interpersonal skills with both internal and external stakeholders. So I think for a young professional who is looking out to start and establish him/her self, procurement would be an ideal place to start from.
- Q: What is your view about the platform that Sri Lankan government has laid with regard to Supply Chain Management of



Multinational companies? Do you expect any changes in terms of policies?

A: Unilever is a global company, but within the countries which we operate in, we are truly local in all our operations. We respect the country law as any other cooperates in Sri Lanka. We engage extremely well with the government authorities & local bodies. We have been in business in Sri Lanka for over 75 years and carry an excellent reputation and that has helped us in many of our endeavors and challenges which we have taken on board and in executing them.

We have had large investments been made in Sri Lanka over many years and we are very pleased about the support we have received right throughout. We work within a set of quidelines and we have a code of conduct which we need to abide by. This is being well understood by officials we work with and therefore, we have been successful

in managing our projects well with good support from the government. Specific schemes that has been introduced for Foreign Direct Investment (FDI) by the Sri Lankan government through the Board of Investment must be highlighted when we speak about the support extended in creating more supply chains in Sri Lanka. We have seen many manufacturing facilities coming up under those schemes which have been introduced, which is a very healthy place to be in. The importance of these companies is that they belong to fields that are in apparel, tourism, Fast Moving Consumer Goods (FMCG), or even industrial equipment sectors which are all driven by their respective supply chains.

Constant dialogues between corporates and government will help to identify gaps which can be fixed and further supported by organizations. Having policies and processes laid down is extremely important for this. However, with

time and some amount of checks on applicability and adherence will further strengthen the bond between government and cooperate sector.

Q: Young blood always seeks challenging opportunities in their careers. What word of advice would you share with them?

A: You should never fly away from challenges placed in front of you. As long as it doesn't kill you, these challenges can only make you stronger. Some opportunities or challenges at times which comes on your way, may seems hard to handle or even you may think it is unrealistic. However, what matters most is that you have done your best. You must always live to the fullest and one must never limit themselves based on the gender. You just need to say yes to opportunities and challenges ahead of you and work hard at it.

ARTICLE

The Support of Total Quality Management Towards Sustainable Supply Chain Management

otal Quality Management is a proactive measure of addressing the needs of quality driven intelligent customers. It can be viewed as an extension of traditional approach to quality which supports the business managers to meet their customer's requirements. TQM plays a major role when a business starts to critically focus on customer satisfaction, as it places the customer at the forefront of quality decision making.

Today sustainability is a global requirement which is gaining worldwide recognition and acceptance. It is not just the process of adopting Triple Bottom Line dimensions (environment, social and economic) to an organisation's strategies. Instead it is a way forward of achieving competitive advantage through the integration of high quality and innovative products at competitive prices. Environmental sustainability can be considered as most recognized sustainable strategy today, due to the increase of pollution and global warming. Businesses now focus on creating customized environmental friendly

products which perform better quality with an affordable price. Today the need to address social sustainability of supply chains depends on the better relationship with stakeholders such as employees, community, customers, suppliers, public sector etc. TQM paved the way for setting quality standards focusing on the social responsibilities of a business entity towards both internal and external parties. Now many organizations are making Corporate Social Responsibilities as core of their business operations due to growing awareness on global social issues among customers. It is imperative for every organization to focus on the economic sustainability aspects via economic viability. It reflects the efforts of the profitability of sustainable efforts for achieving greater market share and revenues.

When it comes to the sustainability of supply chain management it directly depends on continuous improvement of quality. TQM is a philosophy which applies to each and every node of the supply chain, where it greatly emphasis on the roles and responsibilities of every member of each node. In the modern

business world, there is no longer competition between companies, instead it is between supply chains. The managers need to address every integration aspect of supply chain management regardless whether it is TQM, JIT, six sigma, Globalization, advanced technology etc. in order to achieve sustainable development.

Generally, TQM philosophies are based on customer focus, continues improvement, employee empowering and cost of quality. It is a crucial factor that every organization should focus on end customer's requirements on providing a betterquality product which has a positive impact upon organization's reputation and loyalty. As the modern customers are seeking sustainable products and services companies need to meet with customers' global quality, design and price expectations. TQM drives through every member of the staff while encouraging and promoting participation to sustainable efforts on managing the quality of products and services. Adaptation of TQM ensure the shared responsibility in shift of culture of the organization where all the members are empowered regardless from top to bottom with





their support and value added. In case of quality mainly organizations have to focus on three types of costs namely prevention, appraisal and failure costs. These three types of costs refer to money spent on quality before producing the product, when the production process is ongoing and after the end product is received by the customer accordingly. It is important for every company to take steps to balance prevention and failure costs where they can optimize the quality of products with a minimum cost. Companies should also focus on economically viable solutions for environmental and social sustainability in the long run through cost of quality prevention methods.

Supply Chain Quality Management (SCQM) is a systematic approach which combines TQM and SCM together with a focus on creating value and achieving satisfaction of intermediate and final customers. As TQM is totally focused on customer satisfaction this approach helps an organization, to imperatively link-up all the relevant models and methods for the successful implementation of the sustainability management strategies. It is apparent that the contemporary leaders now should think out of the box to proactively inculcate SCQM practices to ensure long term success and survival of the organization.

Current research shows that about 90% of consumers consider quality as a least equal importance with price in making decisions to purchase. Therefore, many companies now concern on developing and identifying benefits of implementing

TQM systems and barriers of implementing such a system. Some of the benefits of implementing TQM for the sustainable development of SCM are.

- Increased competitive advantage over competitors
- Better customer satisfaction
- Improved relationships with stakeholders
- Reduced rework
- Reduced waste of resources
- Increase in market share and growth
- Success in realizing long-term strategic plans of the company
- Improved employee job satisfaction

The companies have to focus on barriers on implementing TQM as well in order to develop more effective and efficient strategies for improving achieving excellence in the business. The main challenge that most of the organizations face is the inability of changing the organization philosophy or the culture due to resistance of change in employees. This process takes some time in the long run implementation system of TQM. In addition, the lack of benchmarking which leads an organization to compare their strengths and weaknesses among their industry rivals is also a challenge. Inadequate resources for TQM including people, product and process has led to lack of quality planning which is an obstacle to the development of quality planning. Strategic and structural barriers have a greater negative impact on the successful implementation of TQM where those two types directly relate to the management and leadership of the organization

and structure, systems and physical resources. Organizations should emphasis on creating sufficient leadership, customer oriented quality policies, strengthening and training of labor, effective corrective actions, concentration of clients and involvement of suppliers in quality planning etc. in order to overcome the obstacles.

It's time for organizations to successfully transform change within the organization with the involvement of top to bottom managers by developing motivation and maintaining enthusiasm through implementing sustainable TQM systems within supply chains. Therefore, the organizational culture should ensure to encourage and promote sustainable TQM efforts which pave the way towards developing a 'Sustainable Supply Chain Quality Management' (SSCQM) framework. As per the discussion it is clear that there are many benefits of sustainability and TQM has for organizations and the society as well. Also, there are many effective ways to overcome barriers they face in order to successfully deal with the complexity of today's business environment. By considering the above stated points emphasis on support of TQM towards sustainable SCM, organizations should deal accordingly to improve the success of TQM implementation.



Farah Jayman Intake 33 Undergraduate BSc in Logistics Management

INTERVIEW

Empowered Women, Empower Women

KASTURI CHELLARAJA WILSON

Managing Director, Hemas Pharmaceuticals Pvt. Ltd.

"A successful woman is one who can build a firm foundation with the bricks others have thrown at her." Mrs. Kasthuri Chellaraja Wilson has done the impossible since 2002 starting her career as the **Finance Director of Hemtours** (presently, Diethelm Travel) and in 2005 she was appointed as the Head of Shared Services for the Group and subsequently as the Chief Process Officer of the Group in 2007. In 2011, she was appointed as managing Director or Hemas transportation Sector. Currently she is the Managing Director of Hemas Pharmaceuticals as well as Hemas Logistics and Maritime sectors. She is also a Fellow of the Chartered Institute of Management Accountants, UK and served on the Board of CIMA, Sri Lanka from 2013-2016. She counts for over 27 years of managerial experience in multiple industries and functions spanning from auditing, consulting, logistics, leisure and travel."

Q: The Logistics Industry has opened new vistas of opportunities for women. What roles are usually offered to women, as a profession in this sector?

A: The business itself has changed. Previously this sector was male

dominant since the industry as a ones such as 3PL. In 3PL, you must plan vehicle movements, least whole relied on manual processes and was heavily operational focused. cost routes, picking, packing and Even though that element is still everything through systems. Also, present, there is more in logistics there are roles pertaining to analytics, when you consider the size of the proactive thinking, processes, systems and planning etc. So, these market. Operational activities sum up to about 20% while the rest is functions and systems are not gender planning, equipment control and biased, it is your capability. Hence, I think logistics industry has opened the costs of operations from a liners perspective., and these a lot of potential opportunities for are underpinned by women. Going forward, moving technology which would into 4PL, the role of a logistics push data which would player would include global be utilized for strategic sourcing, delivery, returns decision making. and value addition. So, there is a lot of mind analytics directed to Q: According to your customer service, finance opinion what are the factors and even in the operations that influence the career choice of women? sector, as long as women are willing to stay on board till late, A: First factor is the check operations and even work overtime. But females women in the have been bound to choose only certain areas because they have multiple roles to play. However, the whole aspect of the logistics the sector has evolved and continues to evolve. You have society traditional aspect such as storage, and the woman's personal bulk warehousing situation. When distribution and on the other hand you have quite systematic

you are young you would want a career, but just because you want a career I wouldn't say that you don't want a marriage and children. But, the problem here is striking a balance between those two. The choice is technically yours, but it has to be supported and understood by your parents, husband and your in-laws. Due to the culture that operates in Sri Lanka, this choice is taken away from women and they sacrifice in the greater interest of keeping the family together.

Secondly, even if you do make a choice and get in to the career, it depends on the circumstances of each person's career journey, personal life as well as fulfillments. It maybe that the woman really takes the choice that she wants to be a full-time mother as it is going to make her happy for the rest of her life. From the career point of view, if you

have choices within the career, I would suggest doing something which you are excellent at and passionate about. Then that will give you happiness because, you are doing it well and also you can give your 100% effort which will create your own brand and value.

much as retaining.

"The challenge I feel is women sell themselves short compared to men. where men position themselves more than what they can really do."

Nowadays, the level of confidence of the young people who are coming from local educational systems and local universities is quite different to a person from overseas where overseas youngsters are more assertive. But, the academic constituents are equal. That is why I keep urging the local universities to do a lot of personality development.

Retention is the bigger problem. As I said before. we try as much

as we

for

can to give a facilitated environment women where they can grow. But, always, there are issues in

organizations. But, if you facilitate that environment, over the career women have choices. On retention, the options we have on career path, sometimes women choose

not to take it tough because they have the sense of obligation and gratitude towards the family. On the other hand, women are not free to make bolder choices in terms of career as Sri Lanka has not evolved in terms of culture. There should be a partnership in traditional thinking, paving path to support female

choices. So, if you want a capable woman work force and women to

retain on their job. we need to take out some of their

Q: With your experience in this field what are the key traits of women for being successful as a profession in this sector?

worries

A: First, you should learn from the bottom and you should move to every area not just the theory and macro level. For women, specially to climb up and earn respect or to delegate a task, we should be able to articulate and guide them. When I was in finance I was always being a person whose figuring out what is happening down operationally. At the end of the day I know what was happening in the entire supply chain and when I talk on facts with my teammates, they kind of gained respect. Technically, it is very important to have your facts when you are talking because the fact is that firstly you are coming through as a woman before they see you as a professional.

Secondly, you should own your space in terms of a woman. When you own your space, you make sure whatever you do are at the top of it. Also, you should be very straightforward in expressing ideas when it comes to dealing with the corporate environment because at the end of the day, there is no man or woman, it is only the work that needs to be done. Further, one thing I would say is that women are emotional by nature which is a strength of us because we deal with people very well. But, at a corporate board room level taking emotion out of your conversation is an art that we have to inculcate.

Q: Have you felt personally any glass ceiling barrier throughout your career life?

A: Honestly, I have seen it visibly but I have never met it. It may be because half of the barriers and glass ceilings are put on by ourselves because we think the company won't adjust and people won't give you a chance. As I came from a sports background. I am fearless and I learnt to communicate directly with my bosses about my requirements. While put in my space I created my value in terms of being excellent in what I do. When the time goes, the opportunities gradually came to me. In my case I never chased after opportunities as they were given to me or forced upon me. What I did was I didn't back out, instead I took

Q: What are the challenges of hiring and retaining women in this industry?

A: Firstly, the challenge of hiring women is not as

it on. For example, I was a finance person but with that I went in to operations, IT and transportation. I learnt from the opportunities and nobody can take out that knowledge which I gained from them. But what you do with the knowledge is up to you. You can always use it to better yourself. There is always a strong person within a woman but it has not been nurtured from the small days.

Q: If working from home (teleworking) gets introduced for women, will it help them in achieving higher degree of satisfaction based on your thinking?

It depends on the job role and it won't be all the time. For me, in very early in my life when my kids were young I told my boss I am resigning because I am having my baby, which I think a woman should not do at all. Luckily, I had a boss who encouraged me and let me work at home. When I came to shared services, I had staff who were brilliant, majority were ladies. So, when they had similar situations, I let them work at home and there was no drop-in quality. So, it is clear that this will work but the corporate and management should be mature enough to understand that work happens even if you stay at home.

Q: To what extend do the human resource management policies at your organization affect female employees' career progression? Do you expect any policy changes to assist the work life of woman?

I must say that we have a policy saying that we will not discriminate women and value and encourage women to be part of the work force. There is an unsaid culture where women can come in late especially when they have kids, but they work late. Technically, it's not written as a policy but it's a culture we have. Also, it is not only for women. Even for men we say that family comes first and we give them the chance to sort them out when they are in difficulties. But we are trying to implement flexible time schedules based on employee requirements as a policy and see its impact on the business. Also, we have a policy to encourage women participation where we try to bring in more women to senior work force through being flexible in understanding their issues related to balancing work and family life.

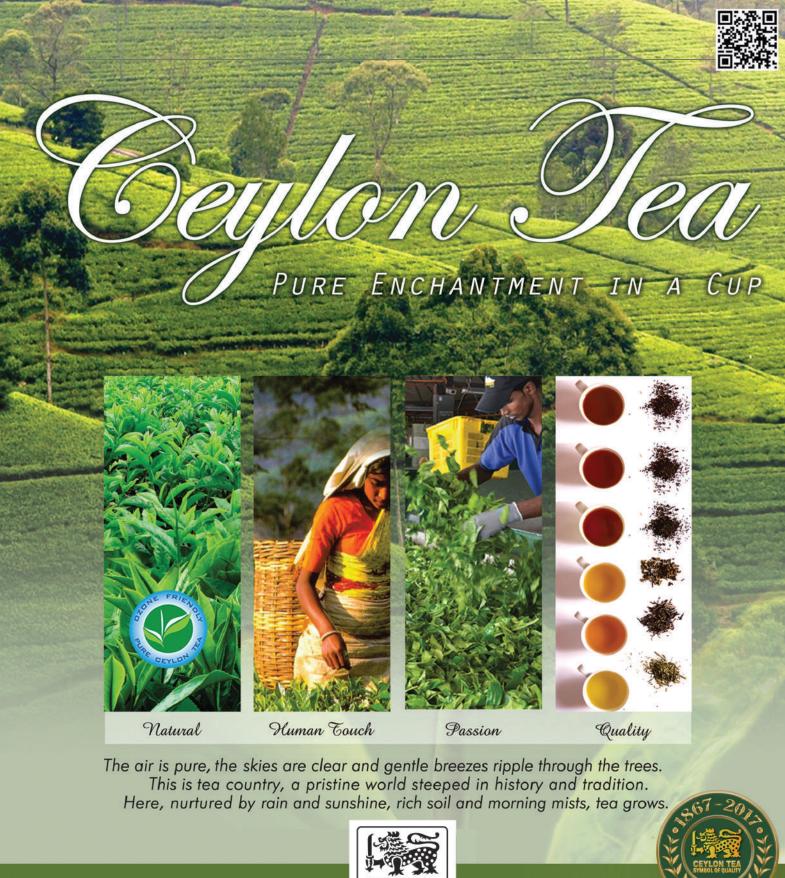
Q: Are you satisfied with the level of recognition given to women in Sri Lanka especially in logistics field?

A: I think the recognition men should give for women is evolving and women are given even respect.

Specially, WiLaT (Women in Logistics and Transport) is doing a lot to bring up women. But Still I think what has to happen is people should understand what logistics industry is going to be. If Sri Lanka continues the traditional thinking then we will never achieve our dream. Our people should visit countries like Singapore and see what they have evolved to. Then they will realize that we can do.

Q: Finally, what is your advice for career women in striking a balance between the work life and family life?

A: I would say, make your personality stronger. Always have dual personalities if you want to succeed. When you go to the work force don't be soft. You have to be crisp, articulate. Even if they take you one on one have the courage to take them. If I show my true self in the working environment, I can't get done half of the things and I learned that in a hard way. The other common issue I notice is women talk very soft. They have to own their space and part of it is you get people to stop and listen to you. This is very important in logistics field as the majority of the work force is men. Finally, you have to know what your strength is and always try to be yourself.





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ARTICLE

Car Free Day: Lessons to be learnt

from the City of Bogota, Colombia

ar dependency within the city of Colombo and its suburbs is increasing at a rapid rate. There are a lot of factors affecting this increase. Even though, it can be accepted that cars help riders to satisfy their travel requirements which the buses cannot provide such as increased comfort, convenience etc. and social status gained by car ownership is also a booming reason why people in Colombo go on to purchase cars. Lethargic behaviors of the bus transport systems do not provide a good quality service to passengers. In addition, the existing economy does not meaningfully seem to restrict the imports of cars and the prevalent easy payable bank loans pave the way for the increasing number of car ownership in the Colombo District.

By the way, this dramatic rise in car ownership highly results in traffic congestion in almost all the roads within the Colombo city limits and its suburbs as the cars utilize the bigger portion of the road space while carrying a fewer percentage of the commuters to and from Colombo. For a passenger who starts a journey at 1700 hrs. from Fort reaches his home in Moratuwa after 1815 hrs. In average, it takes

more than 75 minutes for a 20-km drive averaging the speed range below 16 km/h. During the travel, it causes many difficulties for the bus passengers in the congested buses especially those who are travelling standing all the way. Travel is not enjoyable for the vulnerable groups such as women, children, differently abled people etc. Car riders also find it difficult while being in the congested roads. This also paves the way for much of the emission to the environment. For commuters who work late hours in their organizations tend not to see their kids awake during weekdays. Imagine a life of a family where both husband and wife work and use the same roads like these.

Hence, increasing car ownership in Colombo creates an adverse impact on the economic, social and environmental aspects of the country. But people like to have better utility in travel. Therefore, if public can be better educated that increasing cars for a city is not beneficial, human attitude towards car ownership can be changed. One such reliable mechanism to raise public awareness of the impacts that cars generate on roads and state of travel without cars on roads is to organize Car FreeDays.



Figure 01. Car Free Day in the City of Bogota in 2000

Car Free Day is a day on which the motorists are required to give up using cars and promotes the commuters to use public transits, cycling and walking. It has become a national event in most of the cities in the world such as in France, United Kingdom, Indonesia, Singapore, Israel, India etc. It is a high need for cities like Colombo to go for such car free days as well to make the public aware of the implications of using public transits and the disadvantages of using cars.

Bogota which is the capital and the largest city of Colombia popularly known for its successful implementation of public transport operations exhibits the Car Free Days at world's largest car free weekday event covering the entire city. The first Car Free Day in Bogota was held in February 2000. Interestingly, it became institutionalized after a public referendum in 2000.

One month of planning, consultation, preparations and media campaigns were carried out to prepare Car Free Day, under direction of Office of Mayor, with cooperation of all concerned local, regional and national organizations. The preparation for the event and the Day itself were covered by radio and television, more than 100 articles appeared in the national and international press, and two websites were set up to support the planning and implementation process. On Thursday 24 February 2000, the City of Bogotá celebrated the first-ever Car Free Day. The painstakingly prepared local event involved creating a ban on car traffic during 13 hours and for the entire (and very large) urban area which served to keep some 850,000 vehicles off the city streets. But life in the city did not come to a halt and the economy was not ruined. For the first time in eight years no one had been killed in traffic during that day, traffic accidents were reduced by twothirds, hospital admissions were down by a quarter, and air pollution and noise levels reduced by 8% to 30% depending on place and pollutant measured. This city of 7 million went about its business as usual on Thursday, 24 February 2000 with the exception that between 0630 hrs. and 1930 hrs, an estimated 850,000 private cars stayed at home. People got around on the 24 4th by a combination of walking, skating, running, cycle, other two-wheel transport, and public transport, including 55,000 taxis and around 25,000 small buses. The City of Bogota has been holding its Car Free Days annually and notably, Bogota has had its first official "No Car Day" of 2017 on 02 February 2017. It was from 0500 hrs. to 1930 hrs. Nearly two million cars and 400,000 motorcycles were restricted entering the city on a weekday which fell on a Thursday. 100 percentage of the bus fleet was operational on that day. 3758 slots had been allocated for parking bicycles. Hence, the City of Colombo can learn a big lesson from the City of Bogota for implementing a Car Free Day in the Colombo city limits and its suburbs to educate the concept of Car Free Days.



AHM Sabeen Sharic Lecturer General Sir John Kotelawala Defence University.

INTERVIEW

Playing to the Rhythm

CHATHURA DISSANAYAKA

Group Head of Supply Chain, Brandix Lanka Limited.

Q: Could you give us a brief explanation about your journey so far?

A: I graduated from the University of Peradeniya as a Production Engineer, subsequently got recruited as an Assistant lecturer in the same university. Within a few days, I realized that my passion was to work with people and to achieve things. After a month, I decided to guit and join a semi government organization in Kurunegala for half the pay I got at the university. I was assigned to work on a project to revitalize coir sector in North Western Province which gave me the opportunity to meet different people and to convince them to use this mechanization to improve productivity to stay competitive in the business. Several months later, I joined a multinational company whose core business was software implementation. Though the pay was decent, I was not so happy about the work since there wasn't much of an involvement with people, I wanted to work with people but the work involved too much time with a computer. So, I moved out and joined multinational which was in the business of FMCG. That was a great opportunity, since the job matched my passion, the company gave me the required exposure and taught me how to build a career. I did not look at the clock, just worked with passion and the company kept flooding me with exposure and opportunities, sent me all around the world to develop skills and to grow in the organization. I reached senior levels in management over a span of just 6 years and moved out of the country to receive an international work exposure which transformed me into a different person later on. In my career, I have worked in Africa, Bangladesh, India, Philippines and Thailand on various assignments with many organizations in which the opportunities gave me a tremendous exposure, confidence and maturity. My last assignment prior to Brandix

was to lead the Supply Chain function at Nestle Sri Lanka and at present I am heading the Supply Chain function for the Brandix group.

Q: Apparel industry is the fashion which is always changing. How do the apparel firms anticipate the challenges associated with these uncertainties in their supply chain?

A: Compared to the long run stable products in FMCG companies, the products change in the apparel industry every three months and consists of much volatility in the nature of business too. For most parts of my career, I worked in organizations which had a stable and robust supply chain. Those have been built by adding years of experience and gone through a learning curve to reach a state of maturity. However, the apparel industry is not so old (comparatively) and does not have the luxury of getting systematic inputs as I experienced in my previous work at MNCs. Knowledge has to be built locally within the system while meeting ongoing challenges across value chain from suppliers to customers. The only way to respond faster is to build an agile supply chain which means we have to emphasize on developing suppliers and conducting value stream mapping (VSM) to identify opportunities to cut lead times and non-value added activities. It is more about developing strategic partnerships compared to leveraging and big hammer approaches. Also, we have to develop our teams with correct focus, collaborative mindset & attitude to understand this concept which itself is a challenge at present. Further, we have to extend the same approach to our suppliers too and without that we cannot expect a seamless Supply chain operation to meet the challenges of the industry in time to come.

Q: The main goal of supply chain management is the better management of inventory via improved information flow throughout the supply chain. Up to which extent is this statement applicable to the apparel industry?

A: Guess you have heard the saving in the supply chain world that "uncertainty is the father of inventory" and apparel industry is full of uncertainty. Managing inventory is a major challenge and often results in costs in the form of writing off excess material or having to keep material for a long time with stagnated capitol. We are trying so hard to bring visibility across the value chain and to work collaboratively with our supply chain partners. However, we have a long way to go and we are at the starting point of it. We need to quickly overcome the challenges that rise due to poor information flow, non-conducive work practices and lack of a TCO (total cost of ownership) mindset. We are doing a lot of work in these areas such as building partnerships, sharing information among the players in supply chain, conducting PDCAs to drive improvements, deploying technical resources to overcome technical challenges which leads to inventory and to focus on Value Stream Mapping (VSM) to identify opportunities coupled with the use of analytics to support decision making. I am positive that these initiatives should bring the desired difference and should see it in our business performance in the months to come.

Q: As per Has Lee engineering a 'triple A' supply chain is a proven method to generate a profitable supply chain. What is your opinion about this statement with regard to the apparel sector?

A: The apparel industry is all about Agility, Adaptability and Alignment (AAA). There is a high degree of variability in this industry where

shion changes every day. So, we have to respond fast to the anging trends and to adopt our systems to deliver what the stomers want, when they want it. I guess the success of the Apparel industry is the demonstration of the triple A in action.

Q: Long lead times and unpredictable demands are the two main issues related to apparel supply chains. What strategies would you like to recommend to overcome these barriers?

A: Our customers want to read the market and respond to the signal since their strategy is to "postpone the decision making point" to the very last minute. Ideally, the rest of the supply chain should be able to respond to this demand signal to avoid a stock out situation or loss of sales at the outlet. For this to work successfully, we need to build an agile supply chain (including our partners) which has the capability of respond fast to market signals. In this exercise, the common practices include keeping raw material in a semi-finished manner, building inventories, allocating flexible capacities and operating a customized logistics operation. This is where proximity matters and hence the concept of regional souring and near shore operations coming into the picture. Other important factors are trust and process rhythm rmonization across the supply chain partners which will enab a seamless operation.



A: I guess the word "application" is more relevant compared to "acceptance" in the above question. I think the industry wants these practices to be adopted so badly to keep phase with the changing world but there are a lot of gaps across the value chain which is limiting the use of technology (e-platforms) to reach the full potential. The ERP systems, data capturing systems and work practices should be changed to embrace the technology. Furthermore, we should focus on developing a knowledge base to support and to work with e-platforms because we depend quite a lot on primitive and manual systems.

Q: In the garment sector, many items are being outsourced such as buttons, tags, bows etc. What are the challenges that you face in

outsourcing these items and finishing a quality product on time?

A: The previous concept of having the entire supply chain under one umbrella isn't in practice anymore. Now the concept is to outsource and to focus on core competencies. However, there are many challenges to overcome, to make sure that the chain works smoothly in an outsourced environment. The reliability of supply chain partners in delivering on-time, consistent quality, sustainability and conformance to stringent compliance framework is an ongoing challenge. What is more fundamental to all of the above is primitive information systems and the lack of processes to ensure a smooth operation across the supply chain.

Q: Youth of any nation are its future. What is your advice to them to make their lives successful?

A: I believe doing what you are passionate about is the key to anyone's success, then you don't feel tired or

bored and one will put all the effort and energy to do better every day while enjoying it. However, the biggest challenge is to find out what you are passionate about and sometimes it may take a while for you to figure it out. In the meantime, it is extremely important to get right influences and inputs to maintain focus because our minds can easily be distracted and mislead due to emotions and unfavourable situations. I recommend youngsters to build strong links with experienced professionals to get regular inputs to develop their career. Also, one must focus on building an identity for him or her on the long run which means you have to demonstrate certain qualities in your character and apply yourself in every situation keeping that in mind. Further, having a vision for yourself and driving yourself every second of every day towards it, is what gets you to success. If not u would be working to achieve someone else's goal.

ARTICLE

Logistics Performance of Sri Lanka through the **Logistics Performance Index Perspective**

ogistics plays a vital role in micro and macro-economic perspectives of a country. In other words, from a micro-economic perspective, logistics will ensure customer satisfaction through better logistics performance and from a macro-economic perspective better logistics performance will drive the economic development of a country. Sri Lanka's highly remarkable achievement is the end of civil war that provoked the potential to emerge as an economic centre of the world. As a consequence, key development agendas were designed in recent years to uplift the trade facilitation. One of the main aims is to convert Sri Lanka into a logistics hub to facilitate international trade. The perception of the logistics sector in executing such agendas is indeed supportive in terms of proper policy planning. As a multi-dimensional evaluation indicator, Logistics Performance Index (LPI) has seemingly taken the interest of potential investors. However, the LPI scores of Sri Lanka have not been satisfactory when compared with major competing countries in the region. Therefore, assessing the logistics performance of the country through the LPI perspective has become a contemporary requirement.

To review and evaluate the logistics affairs, measurement is a must. This is where LPI comes in handy. It has been calculated every two years since 2007 by the World Bank. LPI is defined as a benchmarking tool that helps the countries to evaluate their logistic performance and take steps to improve further. To conduct the LPI survey, it considers freight forwarders and express carriers spread across the world to obtain the feedback through questionnaires. Concerning the both qualitative and quantitative measures LPI has two types of categories as International LPI and Domestic LPI. A much more detailed logistics environment along with constraints, institutional performance, core logistics processes and cost and time are evaluated in Domestic LPI. International LPI takes a different angle and evaluates the overall logistics performance with the weighted average of the country scores on six key dimensions. It illustrates a comparative performance of the countries on a scale from lowest score to highest score, from 1 to 5. The six dimensions of International LPI are divided into two main categories as inputs and outputs. Accordingly, the inputs are Customs, Infrastructure and Service Quality. The outputs are Timeliness, International Shipments and Tracking and Tracing.

As per the Sri Lankan context, concerning about the six dimensions, the quality of trade and transport related infrastructure has shown significant underperformances since 2007. The performance of Timeliness is the most satisfactory dimension followed by Service Quality and Tracking and Tracing. The performances of Customs and International Shipments are quite tolerable compared to Infrastructure dimension. According to the World Bank survey results for Sri Lanka, in 2007, the overall score was 2.4 whilst the global rank was 92 among 150 countries. In 2010, it was dropped down to 137 among 155 countries. However, Sri Lanka managed to climb up 56 positions within the next two years and reached 81 among 155 countries with an overall score of 2.8. This is guite an amusement since it emphasized that the large scale economic projects that were initiated during that period had opened up the door towards national development. Therefore, under these circumstances the momentum should have been continued upwards in the rankings and the scores. However, Sri Lanka was dropped down to 89 among 160 countries and a slight reduction in overall score (2.7) was monitored as per the 2014 survey results. Even if these were slight fluctuations, Sri Lanka was excluded from LPI

rankings in 2016 since it was stated that only few observations had been carried out during the 2016 survey. This will indeed influence the international perspective towards Sri Lanka's logistics industry directly or indirectly.

One of the objectives of the authorities is to bring about a significance improvement in logistics affairs in the country. The main aim is to take the rank up the ladder into the top 30 countries with better logistics performance. According to the Board of Investment of Sri Lanka, logistics industry in Sri Lanka currently contributes around 3 percent to national GDP and the target is to increase that to 10 percent by 2020. The envision of establishing a logistic hub that connects international maritime and aviation routes has a direct impact to the future of the logistics industry in Sri Lanka. With the expansion of Colombo Harbour and projects like Port City, Sri Lanka has the potential to become a logistic hub in South Asia. Throughout the past few years Sri Lanka has attracted investments due to its unique geographical position and substantial increase in air and sea connectivity and cargo handling capacity has motivated the potential investors. However, through the LPI perspective, Sri Lanka still has a lot of challenges to overcome in order to succeed with these objectives. Proper policy planning and implementation, establishment of a separate regulatory body for logistics and increase awareness on research and development are few initiatives among the many. If things would continue in such a manner embracing the modern concepts like e-logistics is not beyond the reach.



Anju Stefan Intake 32 Undergraduate **BSc in Logistics Management**



INTERVIEW

Drifts of Sri Lankan Transportation

ROMESH DAVID

President, Transportation Group- John Keells Holdings PLC

"You can't understand a city without using its public transportation system." This statement by Eral Ozan reflects the significance of public transportation in any city. On the other hand, the entire transportation system of a country is the center of the world, backbone of a country's economy and the glue of our daily lives. So, to disclose the marvels and the importance of this field we pursued the guidance of the expert, Mr. Romesh David, the president, Transportation Group, John Keells Holdings PLC.

Mr. Romesh David leads the Transportation Group of JKH. He has been with the JKH Group for 37 years during which he has served in the Leisure, Domestic & International Trade and IT sectors of the Group in addition to Transportation. He presently serves as a Vice President of the Indo-Lanka Chamber of Commerce and Co-Chair of the Ceylon Chamber of Commerce National Agenda Committee on Logistics & Transport. He was recently appointed International Management Council of the Chartered Institute of Logistics & Transport as International Vice President for South Asia. He is a past Chairman of the Chartered Institute of Logistics and Transport – Sri Lanka, the Sri Lanka Logistics & Freight Forwarders Association and the Council for Business with Britain.

Q: What is your opinion about the current transportation system in Sri Lanka?

A: I am not an expert in all transportation systems but I think its very mixed. We have a lot to be thankful for in terms of what we have, but unfortunately there is also a lot to be corrected, particularly in the field of public transport. The efficiency of public transportation is very low and we have a poor growth record in this sector which is crucially aligned with economic growth..

We have failed to develop a lot of the legacy systems that we have had the benefit of in terms of road and rail systems for many years on the one hand whilst allowing inefficient forms of transportation to proliferate, largely unchecked, on the other hand. Here I am talking mainly about the privatization of some forms of public transportation, where we have allowed poor bus services and taxi services in the form of three wheelers, to function in an inefficient manner. The biggest issue in domestic transportation is that we haven't focused sufficiently on the public transportation sector. Having said that, whilst there are a lot of shortcomings, compared to where we were, I believe we are at least headed in the right direction.

Conversely on international transportation, we have developed world class infrastructure in terms of ports, airports and terminal facilities. We are comparatively in a good position when it comes to the competitiveness of our offering with respect to international transportation.

Q: What are the strategies that you would recommend to overcome the issues related to traffic congestion in Sri Lanka?

Again, I must emphasise that I am no expert in this area. Having said that, congestion appears to be restricted mainly to the urban areas, with Colombo, Kandy and Kurunegala as primarily the most congested cities. Whilst there are undoubtedly localized structural and systemic issues, I believe ill-disciplined behavior by all road users plays a major part and is one of the root causes of this situation, particularly in Colombo. Well-disciplined usage will undoubtedly ease the flow of transportation and make much better use of the currently available road space. The second strategy is that we need to implement proper pricing systems for road users. The most congested city areas should be demarcated and we must charge the people who are frequent users based on their road usage. In the longer term, I also believe more walking spaces should be introduced in the city center and roads reduced to single lanes with clean, wide pavements and spaces through which we should encourage citizens to walk rather than using vehicles. Further, since the physical road space cannot be increased infinitely, we have to grow efficient public transportation systems by introducing good, modern buses and rail systems whilst limiting the use

of inefficient modes such as three wheelers and private vans.

Q: What is your idea of manipulating green practices in domestic transportation activities as a cost minimizing solution?

Cost reduction is only one part of the green concept. Α: If you approach greening of businesses only on the basis of costs that immediately apparent, you are ignoring the bigger issue which is the environment. We don't realize it but Sri Lanka is blessed with clean air, abundant water, abundant greenery and a good climate and if we continue to abuse it through proliferation of vehicles and unchecked emissions, it will impact the future generations of our country in multiple ways. Therefore, whilst cost is a very important driver in terms of the benefit of implementing green practices, the negative environmental impact, elimination of waste and from an economic perceptive, reducing the consumption of fossil fuel are far more serious and impactful considerations. Cost should not be the main driver when it comes to green practices.

How do you see the embracement of modern technology and information systems by transportation sector in Sri Lanka as a developing country?

There will be a huge impact from advances in technology. There are a few things that drive the e-concept in logistics and businesses. Primary, among those is the development of sensor technologies and the ability to provide cheaper sensors. Improved and cost effective sensor technology will ensure efficient and greater data gathering which will drive better planning and efficiency in the usage of logistics infrastructure, particularly when it comes to route planning, fuel efficiency, timing and proactive traffic management as a means of easing congestion etc. When it comes to the warehousing component of the supply chain, greater efficiencies in terms of space utilization, inventory and human interface management will all be technology driven. Even projects like Google Loon, if implemented, will enable the country to leap-frog technology towards minimizing issues such as agricultural wastage, which currently is about 30-35% due to transportation inefficiencies. The concept of GPS technology is also very interesting as it provides information on not only the routes but also the consumption, speed, the time taken between any two locations, stationary times etc. There will be a huge mass of data that is continuously being transmitted that can be used for better management purposes. Therefore it is a given that the use of the right technology in the right places could be a useful tool to resolve a lot of the transportation and logistics issues faced today.

Q: With your experience in the third-party logistics (3pl) industry, what are the practices and procedures that you would suggest to ensure safety, flexibility and reliability of the transportation?

I think that well-structured and organized



professional and vocational education forms the core of ensuring safety, flexibility and stability of transportation and logistics systems. As a non-negotiable best practice. health and safety must be at the core of and be the foundation on which all 3PL services and transportation systems are developed, particularly given the profusion of human-machine interfaces in the industry. As a small but important example, drivers should be well educated about safety practices, consideration of other road users and about their own health and fitness as a basic precursor

to licenses. If we approach better practices, particularly from a position of self-interest, it will be a pillar on which we can improve safety.

There is a visible gap between local and global transportation systems. As per your view are there any specific reasons for this?

It is largely due to two factors. One thing is the absolute lethargy of politicians and the public service and the second reason is that we are so used to accepting anything given to us without a single complaint. Before 2009, everything was blamed on the war situation in the country which although is fair in a way in terms of priorities, is

completely unacceptable as a reason for lethargy and inefficiency. Our country was given multiple glorious opportunities to resolve our overall economic situation after the permanent resolution of the terrorist threat, but we have instead been doing what is popular rather than what is beneficial, particularly with respect to the improvement of transportation systems in the country. I believe this gap could be filled if we drive to expand our infrastructure in a planned and organized manner, especially within the urban areas and also address the burning issues with respect to the poor state of public transportation. Furthermore, properly directed taxation and pricing can be used to upgrade and effectively promote the greater use of public transportation.

Q: What are the suggestions that you would recommend to overcome the negativities of the current transportation system in our country?

The shift to public transport is critical. Therefore, I would recommend that the state should seek the participation of the private sector to develop and invest in public transport even through the provision of subsidies, reduced taxes and other fiscal incentives encourage private sector organizations to invest in public transportation. Additionally, the rail infrastructure in our country is completely underutilized. We must therefore, promote a shift from "private" road usage to "public" road and rail usage through a seamless linkage between our rail hubs and bus routes, promote walking and cycling in confined city/urban spaces and confine 'private' traffic to the peripheries with well controlled access to the centers.

> police be upgraded through training and the more efficient use of technology for greater efficacy. These are a few of the many steps that need to be implemented if we are to speed up the development of

I also believe that the skills of the traffic our transportation systems.

As a professional in the transportation industry, how do you see the Sri Lankan transportation industry in 10 -15 years?

Today we have cities around us such as Singapore, Kuala Lumpur and Dubai, that are living examples of how an efficient transport system should work. I believe that over time, with more awareness and greater aspirations, there will be a gradual appreciation of

the importance of the role the transportation industry must play towards making Colombo a world class city and Sri Lanka the primary hub in the Indian Ocean. I also believe that we will have the benefit of being late starters and will thus have better and easier access to the significant advances in technology in the transportation and logistics industries such as sensor assisted driving, driver-less vehicles, UAVs etc., if we choose to do so!

Q: Finally, what piece of advice would you like to give to the younger generation who are seeking opportunities in logistics and transportation field?

My advice is that you must always be restless. You must never accept that "this is the way something should be" just because it has always been done that way or because your leaders and peers tell you so. I firmly believe that the young generation, with the confidence and ability created by the huge amount of knowledge and information that is readily available to them, will challenge the status quo and perform much better than my generation!

"We don't realize it

but Sri Lanka is

blessed with clean air.

abundant water.

abundant greenery

and a good climate

and if we continue to

abuse it through

proliferation of

vehicles and unchecked

emissions,

it will impact the future

generations of

our country

in multiple ways."

The amateurs discuss tactics: the professionals discuss logistics.

- Napoleon Bonaparte



Support of Logistics in Case of a Disaster

The amount of occurrence of disasters has increased during the past era and affected millions of people all over the world each year. Due to those disasters, the attention towards effective and efficient disaster response activities have increased. By referring to several reports, it was highlighted that we should give top priority to facilitate the necessary relief needed by providing them at the right time, place, quantity in an efficient manner which is necessary for the reduction of high disaster impact. The leading and complicated concept of disaster relief operations is known as the Humanitarian Logistics. The Logistics Management process should maintain the balance among transport, supplies, security, storage and co-ordination. Use of modern technologies can support in developing logistics management during a disaster.

The process of logistics planning involves data relating to social, topographical, governmental and physical characteristics of the area. The process of logistics should be flexible and expedite because it is the most crucial factor. So, efficient and effective logistics operations and supply chain management are needed to carry on post disaster relief operations. There are various groups in a completed logistics process such as UNDP, IFRC, Red Cross etc. Core concepts of logistics during a disaster include communication, medical supply, co-ordination, security, basic facilities etc.

These components include the movement of affected people, casualties and rescue teams.

Immediate reliefs should be given to the affected people when a disaster occurs. This process must be organized in such a way that it fulfills the necessary requirements of affected people. The priority should be given to the most vulnerable individuals such as infants, pregnant mothers, disabled people and elders. To carry on these affairs, all the logistics operations are closely interconnected with modern technology. Mismanagement in one part could paralyze the entire post disaster programmes. For an instance, if logistics are provided by several parties, the timely arrangement should be there to meet the needs of the victims. Also during a disaster, timely arrangement is very important because if there is a delay, it may result in another occurrence of a disaster of more complex situation than before and there will be more casualties. So, the logistics assistance during a disaster needs to be organized as soon as possible under severe constrains. It involves; damages to current logistics system, security within the operational areas and the other damages caused by the disaster. These constrains can reduce the effectiveness of logistics support. Effectiveness depends on the amount of consideration and compensation given to the victims, transport and infrastructure facilities.



The procedure of logistics during a disaster can be expressed as follows

1. Production Planning and Inventory Control

Simply this is the process of planning necessary materials and purchasing. This process directly involves with components required for production. The responsible officials and organizations should plan and produce what will be the future requirements in case of a disaster. The department of Census and reports produced by various researches will provide necessary information which includes population details, available possibilities, areas, time periods of disaster occurrences etc.

We should have a proper plan for warehousing too. That means the production output should be stored in a proper manner. For that we need several types of warehouses as per the types of products. As an example, if we want to store fabric items such as bed sheets, towels, jackets; the warehouse must be secured from animals, dust, rain etc. There should be a proper management in quantity as well as quality and should monitor the entire affairs of warehouses.

2. **Distribution and Logistics**

Distribution of products to the affected people after a disaster is different from transport and handling bulk commodities. It includes the transfer of products from the warehouses to the affected area. The effectiveness of distribution process depends on how speedily and accurately the needs analysis of victims are performed. However, this is a very complex situation where there can be some disturbances from political parties and organizations who act as if they are helping but they get involved in marketing themselves. So, the co-ordination officials should take necessary actions to control those teams.

Transport infrastructure is the most prominent factor which plays an important role in transport of supplies to the necessary places. This includes the movement of materials, products and people between production firms, warehouses, distribution centers, ports, air ports and the affected place. The structure of transport must be flexible enough to supply necessaries to the victims on time. Timeliness is very important in distribution and logistics. To obtain timely effectiveness of disaster relief supplies, it is significant to determine warehousing locations and manage which items should be stored there.

Key roles in logistics management during a disaster are:

Rapid response

With the use of information technology, the capability to carry logistical operations timely and deliver the required inventory to the victims will be efficient. There can be land, air, and water transport operations as per the requirements.

Transport

The access of resources to the affected area in the shortest time is very critical. Therefore, a survey of transport services should be done before a disaster in order to have a thorough knowledge on the procedure. Most of relief operations are done by using road and air transport modes. This process includes transport of required resources, rescue & medical teams, casualties, other affected people and dead bodies. Economies of scale in transportation can be achieved by providing the needs of the victims on time and reducing unnecessary delivery trips.

Coordination and Collaborations

In the process of operation, attention should be focused on the decentralized method of distribution of commodities in the adjacent cities or among the countries. The logistics support process of standardization will facilitate the regional cooperation. The governments should have the authority in the process of determining the needs of victims pertaining to the critical resources and ensuring the coordination among NGO's and other organizations involved in logistics support.

d. **Packaging**

The main objective of packaging is to provide protection against damages in the process of transporting and handling. Hence the bulk of unit package must be accurate. The strength of the package depends on the method of storage and transport. For an instance, fast food items such as noodles and cheese should be in tins which suit the transportation on rough roads.

Protecting Important Provisions

After the occurrence of a large-scale disaster, the relief operations require steady and sustained fast moving products such as spare parts, fuel, lubricants, oil and tires. In addition, due to the expansion of the operation, it requires shipments of products and equipment. Before, during and after a disaster, the handling and protection of the supplies should be performed carefully.

It is also compulsory to introduce reliable communication technologies and a better information technological structure between different agencies. Use of technologies such as GIS and real time tracking systems will ensure that the disaster reliefs are distributed fairly. So, in response to a disaster, it is critical to have a logistics chain with basic links.



INTERVIEW

COMPELLING WAVES IN MARITIME ARENAS

IQRAM CUTTILAN

Director/ Chief Operating Officer, Aitken Spence Shipping Ltd

Q: Who is Iqram Cuttilan? How do you describe yourself?

I'm the Director/. Chief Operating Officer of Aitken Spence Maritime sector. I manage and oversee the Maritime Sector of the Aitken Spence Group. This sector involves shipping agency activities, port management, maritime education. I am also responsible for developing new business for this sector. I've been working for this company for over 30 years. I started as a trainee and climbed up the ladder. Whilst working, I was able to obtain several professional qualifications to come up to this position.

Q: How does the strategic location of Sri Lanka influence its shipping industry?

A: The geographic position of Sri Lanka being at the tip of the Indian Subcontinent is certainly very advantageous. We are located in equal distance to the east coast as well as the west coast of India. We are also situated in very close proximity to the main East/West sea lane. This strategic location of Sri Lanka, has a great advantage which we need to capitalize and make the maximum use of our location. Unfortunately, we have been slow in capitalizing in our strategic location when compared to countries like Singapore, Malaysia, UAE, who keep adding capacity ahead of time. Hence it is important for us to be working more proactively by adding capacity ahead of time to capitalize on our strategic location. Upto now our strategic location has helped us in attracting transshipment cargo and being the transshipment hub of the Indian Sub Continent. Currently 75% of the cargo handled in Colombo is transshipment cargo. If it wasn't for our location, Sri Lanka wouldn't have been a transshipment hub

today. However we cannot sit back on the past laurels. We have to be current and use the advantage of our location by being proactive and focused for the future.

Q: Could you brief us about the significance of ports in Sri Lanka?

The port of Colombo can be A: identified as the main port of Sri Lanka. Besides Colombo, we also have the ports of Galle, Trincomalee, Hambanthota and Kankasanthurei. The Trincomalee port used to function as the main port of Sri Lanka a few decades back as our main export, tea was directly transported to the port from the tea estates by rail. But the importance of Trincomalee port slowly declined due to limitations in the port as well as the advent of containerization. The port of Galle has its own limitations as it has a very shallow draft and a limited berthing area. Kankasanthurei port was used as the gateway port in the North. However during the armed conflict, the port was mainly used by the military to serve its requirement of food, essentials as well as for transport of troops. HHambantota is a newly built port which currently handles all the Car carriers. In future it could be another fully fledged port capable of handling all types of cargo. Since the 1970s, the port of Colombo became the main port of Sri Lanka after infrastructural developments, containerizations and other developments.

Q: How competitive is shipping industry in developing decisions on acquisition and mergers for their survival in the market?

A: In the shipping industry, acquisitions and mergers happen mainly amongst the shipping lines and International Freight Forwarders. Within the local shipping industry and the freight forwarding industry it is not

common. The international shipping industry has been at its lowest ebb during the last five years, where all shipping lines have continuously lost money which has led to some of the shipping lines going bankrupt, whilst a few others have been acquired by stronger/bigger shipping lines and yet some others have merged with other lines. The current day concept is that you have to be big to be able to sustain yourself, able to lower your operating costs and capitalize on the economies of scales. So, the shipping lines have been continuously building large vessels to reduce the unit costs which leads to higher supply of tonnage. Further they are looking at mergers and acquisitions to increase their sizes. Therefore, the mergers and acquisitions, definitely have an effect on the industry. When mergers and acquisitions occur, it reduces the number of shipping lines which also means that the shipping lines will be able to rationalize their services. Also, they are able to reduce your cost, because when the shipping line is large, their negotiating power is also large. The lesser number of shipping lines can also lead to cartels and monopolies. Further the local industry to will be affected as the large shipping lines will have tremendous bargaining power. Shipping lines will also try to automate and downsize staff which could negatively impact the country. These are the consequences of mergers and acquisitions.

Q: Modern shipping companies are increasingly implementing e-freight programs. What is their impact on the effectiveness of shipping activities?

A: E-freight programs helps to create a faster, efficient, error free environment. Clients of shipping companies are able to obtain information, rates, shipping



customers too have embraced this. I am happy to say that Sri Lanka too has been moving towards the direction electronic data interchange, transmission and processing of documents online and soon e-payments too.

The shipping industry is a service industry, and I feel that human interaction is also necessary to provide the best service to a customer as automated systems though efficient may sometimes not answer all questions that a customers has.. For example, if you want to get a shipping line assistance immediately, the automated calling systems would not be efficient enough to cater the requirement. Further if you want some special transport arrangement for your goods, the e-freight system may not be able to provide the proper solution. Therefore, a combination of both manual and IT system needs to be applied for the industry of shipping.

Q: Are there any threats to the shipping field due to this exposure with the internet and technology?

A: Some of the threats that can be identified are that people can always make bookings on someone else's name and the shipping line would ship the cargo on the relevant name that's given to them without having a proper details of the cargo. This could adversely effect on the shipping line. Also, the shipping lines are often held responsible and have to pay charges for the false declaration cargo that are shipped through these online shippers.

Q: It is forecasted that there is a continuous crisis in commodity prices of coal, iron and crude oil. How does this global issue affect the shippers?

A: The prices of these commodities have a huge impact in demand and supply. When crude oil prices increases, it directly affects the fuel costs for ship owners who increase their rates or pass on this cost to shippers by way of a bunker surcharge. This affects the shippers as their freight costs increase.

Further increase in fuel also affects the other transportation sectors for importers and exports. The increase or decrease in price f steel affects the shipping lines as they make decisions on building ships when the price of steel is low or scrap the ships when the price of steel is high. The issues of overcapacity that the shipping industry has faced has been due to the steel prices being low and shipping lines ordering larger and more vessels. In the case of coal, which is mainly used for power generation, a price fluctuation affects the price of power generation which in turn affect the production. Certainly, it can be said that fluctuation in the prices of these commodities has a huge effect on the shippers as well as the importers and exporters of all products.

Q: In what way does the shipping industry have embraced the green concept to achieve competitive edge over rivals?

Today, the shipping lines are adopting different concepts of being environmental friendly. Numerous countries are trying to reduce emissions from ships. So, they are encouraging shipping lines to use cleaner fuel such as low Sulphur fuel oil to reduce the emission. Additionally, a huge focus is given on the dumping of garbage and other waste into the sea. It is prohibited for any shipping line to dump their garbage to the sea. Accordingly, the International Maritime Organization (IMO) has provided countries with certain regulations to ensure that the environmental rules and regulations are met. Shipping lines also use these green concepts for their competitive advantage for a certain extent. When it comes to a situation where the demand is high for higher rates, the importers and exporters tend to use the green concept as a marketing strategy by stating that they are using shipping lines which are environmental friendly. But, in this current day and age, this strategy cannot be used as the shipping lines are struggling in cost reduction. But, this will be possible once the shipping industry becomes sustainable in the future.

Q: What is your opinion about the potential opportunities in shipping industry with respect to Sri Lanka?

One of the biggest opportunity that we have is the potential for making Sri Lanka a maritime and logistics hub. Currently we have not capitalized on this opportunity as we are more focused on handling transshipment containers only. Sri Lanka has the potential to increase the volume by providing value added services. One option is to encourage transshipment cargo consolidation and deconsolidation. By providing Multi Country Consolidation services, ports of origin can ship containers which have cargo for more than one destination. These containers can be brought to Colombo deconsolidated and reconsolidated with cargoes from other locations and cargoes destined to one location could be stuffed into one container and sent. This will facilitate Colombo to be the consolidation hub where all ports can just ship cargo into Colombo in LCL form and the distribution is done at Colombo to the final destinations. With Sri Lanka having the facility of sea as well as air transportation, we can also promote Colombo to be a Sea / Air hub. By this we could reduce the transit time and cut down the lead time by bringing in cargo by sea and transferring them to another destination by air. We can enhance our industry further if we can develop these opportunities.

Q: What are the advices you like to give to younger generation who are trying to enter to this shipping industry?

A: The industry of shipping is quite unique because of its working hours of operations and the pressure that is involved with the industry. So, it is important for you to be able to adapt to this industry. The industry has a lot of potentials where you will see a lot of innovations and new ways of doing business. The new generation thereby will have more choices. But at the same time they should be dedicated and committed to meet the challenges they will face.



It's the Supply Chains that are competing. 17

-Wael Safwat, SCMAO-

Technology

-The Essence of Warehouse Productivity

According to the U.S Bureau of Labor statistics, general work place accidents such as slipping and falling make up 15% of all accidental deaths, 25% of all injury claims and 95 million lost work days in each year. These statistics highlight the fact that warehouses should prioritize workplace safety in order to optimize cost tradeoffs associated with work force and enhance productivity. So, by fine tuning the layout and the operations of a warehouse, decision makers in the corporate world can significantly reduce costs associated product distribution and general industry accidents. increase warehouse space utilization,

and improve the overall flow of the business process. This article focuses light on the ways in which warehouses can drive more efficient and productive warehouse operations with the embracement of technological advances.

The core functions of a warehouse include consolidating products to reduce transportation cost, achieving economies of scale in manufacturing or in purchasing, providing value-added processes and shortening response time. Warehouse management primarily involves the control of movement and storage of materials within a warehouse and process the associated transactions, including

shipping, receiving, put-away and picking. When discussing about warehouse operations, they play a pivotal role in the overall supply chain process as it acts as a node linking the material flows between the customer and the supplier. Also, they are the points where the product is paused and touched by utilizing both space and time which in turn enhances the expenses of an organization. So, allocating resources efficiently and effectively to enhance the productivity and minimizing the operational costs of the warehouse is a key requirement of any corporation. Mingling warehouse operations with technology plays an immense role in achieving this



organizational requirement.

Robotic process automation (RPA) is an upcoming technological strategy where a computer software or a robot is manipulated by manufacturers to achieve greater warehouse productivity. It also optimizes the labor and drives significant cost savings as labor is one of the major cost factors in warehousing and order picking operations. Boston Consultant Group research studies show that 1.2 million robots are expected to be deployed in US manufacturing facilities by the year 2025. Faster part and tool retrieval is another key component of achieving greater efficiency in the order fulfillment process. With the utilization of automated storage and retrieval systems (ASRS) the order picking accuracy is increased while yielding better control of inventory. In addition, these types of systems ensure the safety of the operators, increase labor productivity and improve cubic space utilization of the warehouses.But, prior to the installation of these software the existing picking methodology should be analyzed and the storage equipment should be evaluated. It is of utmost importance to determine the right picking method in addition to ergonomic considerations as making the right order picking choices directly affect the supply chain productivity. On the other hand, performing a thorough industrial equipment evaluation enables manufacturers to improve storage density, order picking productivity and lead to considerable cost savings in the long run of an organization.

Industrial Internet of Things (IIoT) is another concept which is extensively used by manufacturing firms where the driving philosophy behind it is that smart machines are better than humans at accurately, consistently capturing and communicating data. Leveraging these technologies and its data enable organizations to pick up and recover inefficiencies, supporting business intelligence efforts, save time and money and thereby support to achieve competitive edge over rivals. Accenture, a leading global management consulting, technology services and an outsourcing company predicts that the value created by the IIoT can reach up to as high as \$15 Trillion by 2030, paving the path for more efficient, effective and intelligent industrial warehouse operations. It also has a greater potential for quality control, sustainable and green practices, supply chain traceability and overall supply chain efficiency with respect to manufacturing companies. Adopting Radio Frequency identification (RFID) technology facilitate the collection and sharing of data in a warehouse. This technology supports the redesigning of business processes, improve data quality, real-time data collection, synchronization and information sharing between the tiers in the supply chain. It also brings about additional benefits such as reduction of losses due theft and pilferage and increased use of point of sale applications.

In the midst of taking advantages of sophisticated technologies, the best way to drive efficiency and effectiveness of a warehouse is to keep an eye on continuous process involvement. In continuous process involvement, the objectives are established, accountability for improvement are set, progress is reviewed and ongoing efforts are taken to improve processes in addition to focusing on short term goals. Implementing lean manufacturing is the best approach to create a culture of continuous improvement within a warehouse which ultimately results in improving efficiency of warehouse operations while lowering overall associated costs.

As we view the future, the role and responsibilities of a warehouse will continue to be molded by the globalization of businesses and the integration of supply chains. As a result, innovative technologies will be critical to achieve efficiency and performance of warehouse operations. The aforementioned technologies are only initiatives to uplift the warehouse productivity. So, firms should always monitor existing warehouse operations and should look forward for means to drive increased efficiency and productivity repetitively in order to streamline warehouse operations and to achieve better outcomes.



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INTERVIEW

A Profitable Industry with Good Prospects

Nimali Perera

Cargo Manager for Sri Lanka and Maldives, Cathay Pacific Airways

Carrying the company slogan of 'Life well-travelled' Cathay Pacific is one of the leading airlines in the world. They are among the few airlines who has pioneered in the implementation of modern technology such as e- Air Way Bills in Sri Lanka and thereby providing their customers with more transparency when performing transactions. In order to simplify this seemingly complicated process of transporting air freight, to find out the company perspective on development of air freight markets in recent years and what prospects the industry has to offer for job seekers, we interviewed Mrs.Nimali Perera who is the cargo manager of Cathay Pacific Sri Lanka and Maldives.

Q: Give us a brief introduction about yourself. Who is Nimali Perera?

A: Currently I am the cargo manager at Cathay Pacific specifically focusing on Sri Lanka and Maldives and driving the teams to achieve Company vision and mission. I started working at Dnata Cargo in Dubai as a school leaver and gained my basic knowledge from Dnata Cargo. Later, I joined Emirates Sky Cargo in Colombo and gained further experience in Customer Service, Cargo Operation and Sales. I joined Cathay Pacific in 2014 as Cargo Manager Sri Lanka and Maldives with more than 20 years of experience working in the airline Cargo trade.

Q: Does the air freight business have a strong demand in South East Asia (particularly in Sri Lanka and Maldives)?

A: Yes, it does. There's a steady demand for air freight business in Sri Lanka and it has constantly been growing. If we look at our region as a whole, it has been a profitable market for any carrier operating in the region. Due to our region's external trading with other parts of the world, there's a good demand for both inbound and outbound air freight.

The perishable segment is somewhat unpredictable and has its seasonal fluctuations, the year-round flow of garment traffic in to the USA and the EU help to keep the overall demand high. But when we think about Maldives, it's a very small market and solely dependent on the fish products which is very much seasonal and unpredictable due to the rapid changes in weather.

Various efforts by the regions' Governments to enhance trading ties with the USA, the EU and the other Asian

countries, such as the Sri Lankan Government's fruitful efforts in uplifting the EU ban for fish imports from Sri Lanka and the GSP+ trade concessions which is under final discussion, will upkeep the demand for exports out of the region. Also, the ever-growing consumer needs of our region and changing life styles will continue to boost the demand for imports from other regions.

Q: What are the general security measures used to ensure the security of air cargo by airlines in Sri Lanka? Does the government and the industry work together for better security in air freight as recommended by the International Air Transport Association (IATA)?

A: The industry practices such as Known Consignor and Regulate Agents are not very common in Sri Lanka. Hence 100% of air cargo are subject to X-ray screening by the Ground Handling Agent, Sri Lankan Cargo in Colombo. For those shipments, which do not fit in to the X-ray facilities at the Sri Lankan Cargo Terminal, alternative measures such as Explosive Trace Detection (ETD) and physical search are applied by Sri Lankan Security.

Sri Lankan Cargo has received RA3 certification which enables direct exports into the EU. However, we are not yet a Transportation Security Administration (TSA) approved port, in other words any shipments originating from or transiting Colombo must undergo X-ray screening at the last departure point prior to entering US territory. There have been efforts made by Sri Lankan Cargo and some customer airlines to obtain TSA

Q: As per your view what kind of air freight cargo has the most demand?

approval which is still pending due

to some reasons.

A: Well, it is mainly apparels under the general cargo category. We also get some rubber products, tea and machinery. Tuna fish and seafood has the most demand in the perishable sector. Fruits and vegetables, flowers, plants and cut foliage, live ornamental fish are the other major export commodities from sint lacks. But valuable cargo, courier and mail exports are not very



quantities of loose cargo. Currently the few freighter operators have deployed larger aircrafts such as Boeing 777F and Boeing 747F which are capable of carrying over 100 tons of cargo at a time.

Q: What key challenges do the industry players face when dealing with air freight business?

Right now, the surge in capacity supply due to the arrival of several freighter operators, upgrade of passenger aircrafts and new entrants in response to increasing passenger demand, has intensified the competition and pushed down the market rates.

On the other hand, all carries are dependent on a few appeal accounts and perishables commodities which sometimes have an unsteady demand. So, the lack of diversity has been another challenge for carriers to remain profitable throughout the year. There is also a directional imbalance in external trade, in other words most of the imports are from the East and the exports are West-bound. So, while an airline from the Asia pacific will have a higher demand for Imports, a Gulf airline can be better positioned to cater the demand for Exports.

Besides, the limited agent base with a few forwarders holding a much larger market share, local infrastructure limitations both in terms of inland transportation and airport capacity, less intermodal connectivity and inefficient processes either due to lack of up to date knowledge or other resources are the challenges currently faced by the air freight business in Sri Lanka.

- to IATA, there According have been improvements in demand and capacity during 2016 in the Asia Pacific region. If this growth continues, can the existing facilities and capacities of airlines and Sri Lankan airports meet the requirements?
- It's certain that the Cargo Capacity at Bandaranaike International Airport (BIA) should be expanded within the next few years to accommodate the growing demand for air freight and ensure a smooth operation. But we also see a good opportunity at Mattala Rajapaksha International Airport (MRIA) as a freight hub for Southern and Eastern Sri Lanka with upcoming industrial zones and port development projects.

Also, like in Europe, the USA or India, a strong road feeder network connecting Sri Lankan airports could be the way forward. A good road or rail link to supplement air freight fow between BIA, MRIA and the Northern Sri Lanka will enhance our logistical readiness for the growing air freight business.

Q: What function does the "e-Air Way Bill" play in the air cargo industry?

It's an Industry initiated by IATA which is currently

been rolled out successfully in many parts of the world. It means the reduction of paper usage in air freight business, improvement of data integrity, increase in efficiency and enabling advance data submission to transit or its destination Customs. Currently few airlines have initiated the e-Air Way Bill (e-AWB) process in Sri Lanka.

The e-AWB process is carried out online, which makes the transactions more transparent to the customers and for the company.

e-AWB is in fact the initial stage of e-freight. E-Freight means the total elimination of paperwork in the airfreight business, which requires all stakeholders including the shippers, freight forwarders, airlines, customs and other government authorities to come under one platform and execute total digitalization and automation of the end to end air freight process.

Q: According to your opinion, has the Sri Lankan air freight industry grown over the years?

Yes. Certainly, it has. With my past 20 years of experience in the airline trade, I can feel the immense growth and evolution of air freight as a business in Sri Lanka. If you look at the figures it is also evident that the Sri Lankan air freight industry has enjoyed a significant growth in annual volumes during the past five years. With reference to www.srilankancargo.com, the average annual growth in exports, imports and transshipments at Bandaranaike international Airport (BIA) between 2011 and 2016 have been 9.1%, 14.5% and 5.6% respectively.

Q: Does the air freight field offer good prospects for young job seekers who are new to the field? What piece of advice would you like to share with them?

Of course, air freight is a good field for a young individual to start with. It requires you to be very dynamic, embrace the constant changes and disruptive technologies and able to work in a very competitive environment.

Since it's a bit of a complex industry a beginner may start to go with the flow and get the basics right. But very soon you should start to think out of the box and come up with your own initiatives and innovations to create a better customer experience every day and drive profits for your organization.

Like in many other lucrative businesses, innovation and continuous improvement have no limits in our industry, and are the only means to stay ahead of the competition.

HELLO TOMORROW

The future of delivery is here, which is to be more fast, reliable, cost effective and safer. At present logistics is a part of supply chain that fulfills customer requirements by properly planning, controlling the flow of goods, services and other related information from the point of origin to the point of consumption. Following are some future innovations which will change the way we see logistics as a whole.

Drone Delivery

It is long been acknowledged that autonomous flying machines are the future. As for the drone, it is an unmanned aerial vehicle utilized to transport packages, food or other goods. In the use of drone human involvement is not needed in delivering the package to respective parties. Amazon is hoping to launch its Amazon Prime Air drone delivery service with vertical take-off and landing skills and horizontal flight which makes it like a hybrid of a helicopter/plane. The drones have to return to the base after each delivery for recharging. It is designed as a last resort of delivery hierarchy where you are not supposed to use them for every order but for emergency orders. The delivery drones are undergoing various tests presently and it is expected that these drones will be launched very soon.

Autonomous Ships

These autonomous ships will be fully automated where technicians will be monitoring and controlling the vessels through satellite data link. "The European Union's Maritime Unmanned Navigation", led by the "Fraunhofer Center for Maritime Logistics and Services" in Hamburg, and is accessing the technical, economical and legal feasibility of operating an un-crewed merchant vessel autonomously during an open sea voyage. It is expected that autonomous ships will be launched in the next 10 to 15 years. These robotic ships are expected to be safer; where the cargo will be safe from the point of origin to the destination, more efficient and cheaper to run; where the cargo could be delivered fast and the cost associated can be minimized since wages paid for crew members and handling personals can be eliminated.

Autonomous Vehicles

Driverless vehicles are a ground-breaking change.

Googles vision of driverless electric vehicles has a lot of people predicting that the future belongs to self-driving vehicles. These vehicles are capable of navigating without human involvement which will minimize road related accidents caused by the driver. Their ability to adopt to traffic by monitoring the congestion will avoid obstacles where it can deliver the goods in the allocated time. Most importantly these driverless vehicles have the ability to load and unload without any supervision which can increase the efficiency of the overall process.

The Internet of things

The technology allows devices to communicate with each within an existing internet infrastructure without the involvement of human. Its applications in the future of logistics is expected to increase speed, decrease waste and reduce the overall cost. This will change how supply chains access information where it will connect people, processors, data via devices and sensors. By allowing devices to communicate with each other:

- o Asset losses can be reduced.
- Fuel cost can be minimized by monitoring traffic congestions
- Managing warehouse inventory which will avoid out of stock situations

Currently customers are keener for better, faster and more transparent shipping and delivery services where the customers are willing to receive delivery from 3PLs rather than directly ordering from the retailers with having a willingness to pay more for faster delivery and even more for same day delivery. In order to take Sri Lankan Logistics to the next level we need to be updated about new innovations regarding logistics and also, we need to implement those practices. Therefore we will be able to efficiently do all logistics and supply chain related deeds in an effective manner by specially reducing the cost factors associated with those activities.



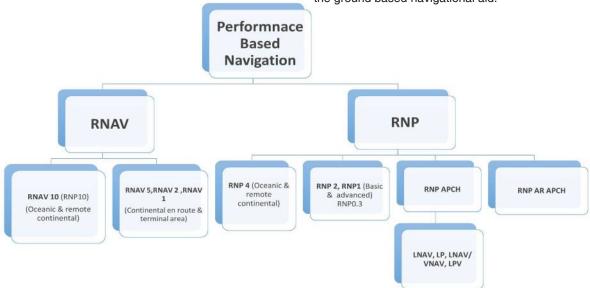
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The Role of Performance Based Navigation Technology in Air Transportation

Performance based navigation (PBN) is one of the two key components of Next Generation Air Transportation System (NextGen) which is the ongoing transformation of air traffic control technologies and procedures in the United States of America. Two key components of NextGen are Performance Based Navigation and the Optimization of Airspace and Procedures in the Metroplex (OAPM). What does this PBN system mean? How is PBN going to improve efficiency and accuracy of air navigational services? What are the advantages of the PBN system over the traditional air traffic controlling systems? This article focuses on answering all these questions.

The PBN technology can be basically categorized in

to two categories as RNAV (area navigation) and RNP (required navigation performance) which can be used in order to improve airport access, shorten flight paths and increase en-route efficiency. PBN is a satellite based technology that has been developed in order to get the optimal use of increasingly congested airspace. In the simplest terms, it is a shift from ground based navigational aid to aircraft receivers, to a system that relies more on the performance and capabilities of equipment onboard the aircraft, which means PBN system is not tied to the ground based infrastructure and it permits the aircraft to fly much more economical routes. As per Graham (2009), PBN is the single-most important project that ICAO has undertaken related to safety, efficiency and being good stewards of the environment. Also it is said that aircraft become self-sufficient due to this satellite navigation over the ground based navigational aid.



RNAV is a method of navigation which permits aircraft operation on any desired flight path within the coverage of the station-referenced navigation aids or within the limits of the capability of self-contained aids, or a combination of these. RNP systems also provide improvements on the integrity of operations. This may permit closer route spacing and can provide sufficient integrity to allow only RNAV systems to be used for navigation in a specific airspace. The use of RNP systems may therefore offer significant safety, operational and efficiency benefits.

When viewing from the point of airlines, the main focus of the airlines is to reduce the cost of operations, increase the efficiency by reducing delays, and to improve the safety in this highly-congested air space in order to attract more passengers. According to the reports and the statistics, the fuel cost for an aircraft is high when the aircraft has to take a sudden change in the arrival or take-off angle. If the angle is gradually maintained, then it has the ability to achieve a higher fuel economy. When an aircraft is operated under the PBN system, unlike in ground navigational aids, there is a better possibility of

help the reduction of fuel costs as well as the comfort of the passengers.

Not only the airlines but also all the parties involved in air transportation are expecting these features of safety, accuracy and efficiency. In gaining the optimum use of the air space, the role played by air traffic controllers is immeasurable. They are the ones who are directly responsible for the smooth flow of the system. Air traffic controlling is identified as one of the highest stressful jobs in the world. PBN system is capable of reducing the workload and the stress level of the air traffic controllers. The PBN technology via automation will help to change the job tasks of the air traffic controllers from controlling to monitoring. The automation processes and use of predefined GPS points are much helpful in making the job task easier and more accurate where human errors will also be significantly reduced. As per to the article 'Human Error in ATC Systems' by James Danaher, more than 90% of all the system errors that occur stem from human mistakes in attention, judgment, and communications by controllers. Under the PBN system when they enter to GPS points via which the airplane should travel through, it will come along them automatically and there is no need for the air traffic controllers to give navigational aids (navaids) as in the traditional system. Only thing the air traffic controller has to do is monitoring whether the pilot comes in the correct route and deciding what should be given the priority etc. if more than one flight is arriving. Unlike in the traditional ground aid methods there is no need to give navigational aid to the pilot in landing or taking off. This leads to the reduction of communication between the cockpit and the air traffic controlling tower, which will also result in reduction of incidents that can occur due to human errors.

Under the traditional air traffic controlling mechanism, handling aircraft was directly affected by the capacity of the air traffic controller. As a basic example, a well experienced air traffic controller will handle a larger number of aircraft than an air traffic controller of lesser experience or capacity. But under the PBN system the predefined time allocations and system automation processes will let those air traffic controllers with lesser capacity also to handle more aircraft as the more experienced ones do. As the time that is spent in landing or taking off the aircraft, the holding times, distances and places are predefined and pre-determined there is a standard number of aircraft that can be handled and it will not be depending on the air traffic controllers. The only thing that the air traffic controllers will have to do within this system is to monitor whether the aircraft is operated within the given GPS points and if there is any issue taking actions on it. This will also be helpful in reducing the flight distances and better holding positions than previous ones which will result in reduction of fuel costs and environmental pollution due to air transportation. Air transportation being one of the key modes of polluting air, reducing the flying time

and distances through PBN route structures is another important advantage. PBN technology will also help in improving the airport and airspace access in all weather conditions, and the ability to meet environmental and obstacle clearance constraints. The best example for this is the aircraft accident that occurred in Sri Lanka on 12th December 2014. The Civil Aviation Authority identified the reason as poor visibility due to weather conditions. It was a military aircraft which belonged to Sri Lanka Air Force. These kinds of accidents due to poor weather conditions can be avoided through the PBN system.

So it is clear what PBN means and how important the PBN technology is, in improving the efficiency and accuracy of air transportation and air navigational activities. These advantages are there for all the stakeholders; namely the passengers, airlines and air traffic controllers. As we all know, air space will become even more complicated in future than the present. So, automation will be highly preferred in confirming the safety, efficiency and accuracy of air navigational activities. PBN technology will play a crucial role in the future when it will be utilized all over the world in operations. Also, in Sri Lanka, it has been implemented in the latter part of 2016 at the Bandaranaike International Airport where it has begun to give many advantages in increasing air transportation efficiency and accuracy.



Nirmala Dayawansha Intake 32 Undergraduate **BSc in Logistics Management**

INTERVIEW

Imminent Quivers in Sri Lankan Warehousing

SAIF YUSOOF

Managing Director, EFL (Expolanka Freight)



sports at Expolanka as the **President of the Sports** Committee. In 2016, he was elected President of the Mercantile Football Association, a testament to his commitment to developing football in the country.

Warehousing plays a pivotal role in Sri Lanka's Logistics industry. What is your opinion on this statement?

A: Indeed. In the sense. warehousing has always been around, being as important as it is now. But it's really the future of warehousing that's questioned. The demand for separate warehousing in the chain of supply chain management is ever increasing because of manufacturers increasingly looking to outsource anything and everything outside of the core business areas. For an instance, At EFL we specialize in 3PL warehousing solutions. It's everevolving, wherein we have WMS (Warehouse Management Systems), processes, systems, intelligence, etc. It's actually much sophisticated than merely undertaking cargo to be stored safely. Therefore, we as a business who has taken up 3PL warehousing are continually working towards improving our services. As a fashion logistics specialist, the services expected by our customers are also ever-evolving and changing. Our teams constantly upgrade and develop new technology to improve efficiency and to introduce process improvements. Today's Logistics is all about increasing speed and decreasing cost. So, the pivotal role of warehousing is to be a service provider who helps in bringing down the total cost.

> What are your views about the warehouse infrastructure and facilities in Sri Lanka?

> > A:EFL as an industry catalyst

are proud owners of 1st class warehouses in terms of layouts. structure, newer and improved IT and software systems. But the reality is that, as a country Sri Lanka has a long way to go, although comparing to the past, we have managed to come a long way in terms of infrastructure development. Many in this region are embracing the 3PL way of warehousing - as what makes the difference to the customer in choosing their warehouses are the VAS (Value Addition Services) that are offered in line with competitive rates. There's an increased focus in the customers to look out for options which provide them with more services than giving them just a facility to support storage of their goods.

One more important aspect that needs emphasis in terms of warehousing infrastructure is that, warehousing is not all about the buildings; but it's also about transportation, road networks, etc. So, when we talk about infrastructure related to warehouse facilities, in reality, there's a much wider scope that we need to be focusing on. Aspects related to security, safety standards, health and compliance in the warehouse facility are audited by ISO (International Standards Organization) and SGS (Société Générale de Surveillance). In addition to these, the customer and customer's external auditors also check on the compliance and standards nowadays. Very fortunately in Sri Lanka, there are about 4 to 5 players who have taken the initiative to build world class warehouses.

Q: How has Sri Lanka accepted the rapid growth of technology and modern business concepts related to warehousing?

Tremendously. EFL itself, A: invests a lot on warehousing and no one could value technology any more than we do. As we see it, 'visibility' is the name of the game. The faster the turnaround time and the Value-Added Services (VAS) you can provide, the better edge you get



in being the customer's preferred choice. In Sri Lanka client demands are generally not as high compared to a European country or like in the USA. Although, all clients alike expect traceability as a fundamental tech standard. We understand this and we value it, though it comes at a price. People today are looking for visibility, so, what I suggest is to have an industry standard warehouse management software which acts as an ERP to minimize the warehousing cost.

Q: When it comes to automation of systems, how far do you think that those practices can be applied to warehousing in the Sri Lankan context?

Practically it can be implemented if we have the technology. According to my knowledge, there is no purpose-built automation in practice anywhere in the country. In fashion logistics, we are currently building a model which folds clothes, because we see that in the future, manual labor is becoming an issue. It's for this very reason that there's a high demand of and for automation. However, the cost of investment for automation is very high and unfortunately the Return Of Investment (ROI) time is comparatively much higher and takes long to recover as there's a high level of volume and scalability that is usually expected from an automated warehousing facility. But, at the moment, in terms of cost, using human capital is actually cheaper in comparison to the automated warehousing in Sri Lanka due to the issue of scalability.

"As a nation, we should stop labelling our country as "cheap labor", as there's not enough labor found in the warehousing cluster."

Q: Policy makers and regulatory bodies play a crucial role in the warehousing infrastructure development. What do you expect from them?

A: Specifically, in the warehousing cluster, there is no regulatory body as such. However, policy making is crucial for the entire logistics industry. In 2013, in line with the Finance Act, a hub concept was introduced, with five subsections, which covered the next level implementation needed for the government to promote Sri Lanka as a logistics hub with emphasis on providing total solutions. Making use of this initiation, EGDC (Expo Global Distribution Center) was opened in the country's first ever commercial Freeport, which has the ability to offer complete end-to-end solutions, with the ability to conduct global transshipment and trade related activities. However, due to the inconsistency of regulations, we have not been able to take much advantage of such projects.

The free port creates an easy transition of freight with the outside world. Customs was strictly against the initiation of the free port which in return corrodes a business from running at its highest potential. Free ports, though it's physically inside the country, should be treated completely as a duty-free zone; a foreign territory, where statutory rates should apply to all stakeholders alike. If we are to observe economic growth as a result of liberalized port regulations; economies of, Singapore, Dubai, Hong Kong, serve as great examples.

Q: What is your opinion on warehousing industry in the foreseeable future?

A: I'm confident that our domestic warehousing is going to increase tremendously, as there's a good scope. We should focus on improving the existing freeport and see how we can implement the best





practices as an industry, with the support of the government. In reality, we are faced with even bigger challenges, we're continually pushing ourselves to evolve as a player in the international logistics business getting on with the new trends, which is also equally important for sustainable growth in this industry. Like I mentioned previously, many of this will fall in place with focused regulations. We should focus more on making proper use of the strategic location of our islandnation in the Silk Route. Sri Lanka is a strong player in terms of exports and transshipments, as we have been for a long time. But looking at it futuristically, we also need to improve our import retail market as well as make port regulations conducive to foreign investors in order to make warehousing by itself a profitable venture. With the increase in our GDP and income growth and the increasing demand for more consumer products, we are predicting a boom in the logistics industry with emphasis on warehousing.

As an experienced professional, what do you

think of the career opportunities available for the undergraduates in the field of warehousing?

For us, this business is not rocket science. Simply speaking it's just a combination of common sense and practicality, but we need experience. Sri Lanka as a nation lacks the experience in warehousing. But, military personnel have the best experience when it comes to warehousing. I suggest plugging our resources to give the necessary experience to the undergraduates to go

"The youth of today are the leaders of tomorrow." What is your message to the future generation of our country?

My advice is don't stop reading. A majority don't read in our country. All successful companies started from failures. Combine hard work, passion, belief and knowledge. This in return will make your life better and you will be unstoppable.

Logistics to e-Logistics

As per the Council of Logistics Management, logistics is 'part of the supply chain process that plans, implements and controls the efficient and effective flow and storage of goods, services and related information from the point of origin to the point of consumption in order to meet customers' requirements. The logistics aspects can be segregated into four major activities as;

- Inbound logistics which deals with the focal company and its upstream suppliers,
- Outbound logistics which focuses on the focal company and its downstream customers
- Internal logistics which is about planning and control of material flow within the boundaries of the focal company
- Reverse logistics which is about the return of goods in the opposite direction of the normal flow.

The intention of logistics is to carry out planning processes, execution and controlling flow of goods, warehousing and managing information from the initial point of production of goods to selling them to the final consumer, in order to fulfill or delight the customer. The use of technology in the above-mentioned processes have evolved into e-logistics. Therefore, e-logistics is a wide-ranging topic related to supply chain integration that has an effect of eliminating intermediaries in certain circumstances (such as wholesaler or retailers) and improving the transparency and speed of the supply chain processes.

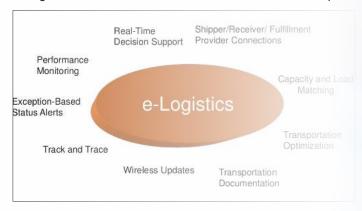
E-logistics does not have one agreed definition but one definition is as follows. 'E-logistics is a dynamic communication, computing and collaborative technology that transform key logistical processes to be customer centric by sharing data, knowledge and information with

supply chain partners'. Additionally, e-logistics includes the mechanism of automating logistics processes and providing an integrated, end-to-end fulfillment and supply chain management services to the players of logistics processes. Those logistics processes that are automated by e-logistics provide supply chain visibility and can be part of existing e-commerce or workflow systems in an organization'. Further it is concerned with the use of systems, informatics tools and the internet communication medium to service logistic processes. The most commonly used tools in e-logistics for the purpose of cooperation in the virtual scope of e-logistics can be stated as follows: The Internet, electronic platforms, electronic catalogue, data warehouses, information services, systems of offers and purchasing, transaction systems and communication tools and systems. Most of the interactions with the external environment of an organization is via the internet. Therefore, the internet plays a vital role in e-logistics. Internal communication and data exchange is mainly done through systems such as ERP (Enterprise Resource Planning) systems or VPN (Virtual Private Network).

One aspect of e-logistics is the online ordering of products where three main functions are carried out. They are:

- Request for Quotes (RFQ)
- Shipping of products
- Tracking of packages

Here, the intercommunication with the relevant parties is through an e-commerce server. The quotations are called for online. After getting the response, the purchase order is updated, after which the shipping process is initiated. When the products are shipped out for the specified destination, a tracking number is provided to the customer. This facilitates easy tracking of shipments for the customers which improves the visibility of the transport



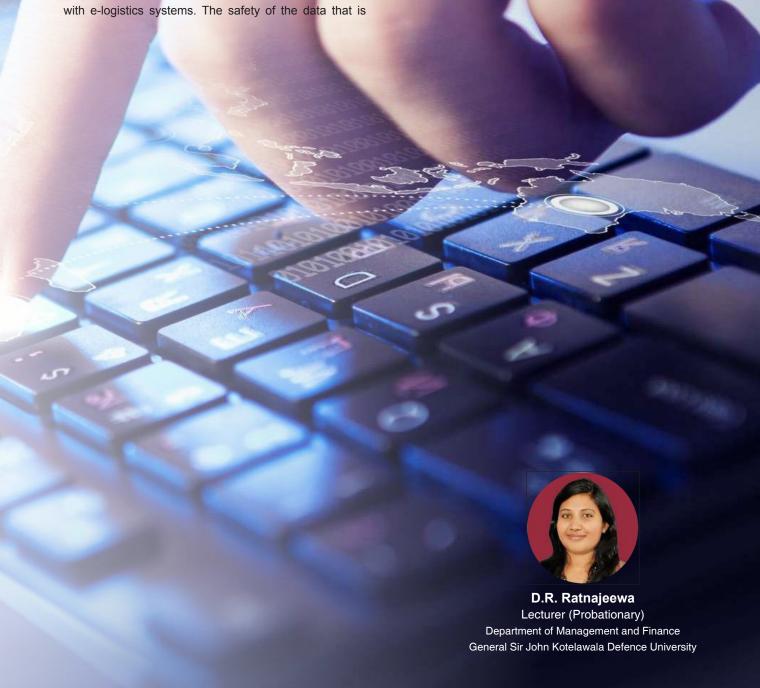
Uses of e-Logistics

process for them. Also, any delays which occur along can be easily identified and monitored.

Also, e-logistics crosses physical boundaries such as geographic barriers and helps organizations to expand into new markets all over the world. Additionally, some other main advantages of e-logistics are reduction of the costs of functioning, efficient management of the supply chain, shorter time cycles and quicker reaching of the products to the market, new possibilities of promotion of a product, improvement of customer services, extended productivity of employees, faster order fulfillment process and improved transparency and accuracy of the process. This is further depicted by the following diagram which shows the different uses of e-logistics. On the other hand, there are several issues which are associated

transmitted via online systems may be at risk of being stolen by other parties as the hacking of various online systems has increased in the past few years. The durability and capacity of connections may be dependent on the information systems which are used by the partners. As an example, although the manufacturer may be using a high technological sor isticated system, the smaller suppliers may not have such systems. The protection of data is also another issue as physical as well as digital attacks or incidents may destroy or erase vital data.

Therefore, in conclusion, e-logistics is a concept which is gaining fast momentum in the current business environment, but at the same time it faces several issues which are challenges that the industry has to overcome



THROWBACK

Our Talents

When walking back through the memories of the journey within last year, it shows that the KDU undergraduates are filled with academic knowledge as well as extra-curricular activities. As a department, the students successfully executed several events which can be considered as masterpieces within last year. It is a great pleasure to state that the secret behind executing those successful events is the great support received from the beloved lecturers.



Logistics Day '16 Following the footsteps of Intake 30 students, the second Logistics Day of KDU history was organized by the Intake 31 students of Department of Management and Finance along with the guidance of Dr. Namali Sirisoma and Mrs. Kalpana Ambepitiya as Logistics Day '16 on 31st March 2016 at KDU Premises under the theme of Together Towards Tomorrow for Sustainable Logistics Systems. The event was graced by the Vice Chancellor of the university, Rear Admiral Jagath Ranasinghe as the Chief Guest. The first ever logistics magazine, "Logistics Times" was launched on this day.

Management Champions League '16

To welcome the juniors, the freshers' welcome was organized as a cricket encounter by the students of Intake 32 of the Department of Management and Finance as Management Champions League '16 and was held on 27th of February 2016 at Kandawala Navodya Maha Vidyalaya. This was the first time that the management faculty organized a fresher's welcome in KDU history. The Champions were MTS Bacardies of Intake 31 while the Logistics Blasters of the same intake became the Runners up. The Best Male Player award went to Pubudu Dasanayake and Malithi Pathirana got the Best Female Player award.





Field Visits

KDU provides their students with both the academic as well as practical knowledge in order to produce capable undergraduates to the industry. Therefore, field visits are organized annually to ensure the quality of the degree programmes and the knowledge of the students. For the Logistics Management students who are specialized in Transportation Management, the field visit was to the Katunayake Bandaranaike International Airport and for the students who are specialized in Supply Chain Management, it was to the Hirdaramani Mercury Apparels Pvt Ltd, Avissawella last year.

THROWBACK



Disaster Management Poster Exhibition

The poster exhibition organized by the students of the Department of Management and Finance of intake 33 was held at the academic building of General Sir John Kotelawala Defence University. The event which was named as Disaster Preparedness Poster Exhibition '16 was graced by the Deputy Vice Chancellor (Defence & Administration) Major General Ruwan Kulathunge of the University. 14 posters were exhibited based on preparedness practices for natural as well as manmade disasters namely tsunami, fire, hurricanes, volcanoes, floods, dengue, civil conflicts, HIV, chemical disasters, war, landslides, earthquakes, nuclear disasters and industrial disasters.



K D U Y o u n g Entrepreneurs

The Entrepreneurship Business Plan Exhibition organized for the 3rd consecutive year by the students of the Department of Management and Finance was held on 20th of October 2016 at the academic building of General Sir John Kotelawala Defence University. The event was graced by the Vice Chancellor of the University, Rear Admiral Jagath Ranasinghe as the chief guest. This time, the exhibition was organized by the intake 32 students with a combination of Logistics Management and Management & Technical Sciences. The event was organized as a partial requirement of the Entrepreneurship Development Module. In the exhibition, 14 innovative business plans were presented and the certificates were awarded to the winners.



WiLAT Walk

Women in Logistics and Transport (WiLAT), the womens' forum of the Chartered Institute of Logistics and Transport (CILT) organized a walk on Saturday, the 24th of September, under the theme of 'Striking a Balance for a Greener Tomorrow' for the second successive year with the objective of reducing the carbon footprint in the industries. The walk commenced at the Independence square from 7.30 am onwards and a large number of Logistics Management students from Intake 30, 31, 32 and 33 of the Department of Management and Finance took part in it.



Discovery of Explosives

The workshop on Discovery of Explosives organized by the Department of Management and Finance for the Management and Technical Sciences officer cadets of Intake 32 and 33 was held on 27th of September 2016 at the Main Auditorium. The event was graced by the Vice Chancellor, Rear Admiral Jagath Ranasinghe and the resource persons were Military Officers from Sri Lanka Army Corps of Engineers. Military Accessories were also displayed in addition to the lectures.



GAMES

Word Search Puzzle





CONTAINER PORT CARGO LOGISTICS NETWORK SHIPMENT WAREHOUSE VESSEL



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"Good business leaders create a vision, articulate the vision,

passionatly own the vision and relentlessly drive it to complition."

-Jack Welch