



DOEL SET TO FLY HIGH

An article published in TELETECH, 17 May 2012

31 January 2012. In the question answer session of the parliamentary session there was a question regarding when the Primary model of DOEL laptop of Taka 10,000 would be available in the market. In reply the Hon'ble Minister in charge of MoPT Mr. Rajiuddin Ahmed Raju informed the parliament that just after inauguration of DOEL laptops on 10.11.2011 by the Hon'ble Prime Minister Sheikh Hassina, a committee (the Committee) of experts was formed to examine the quality of the DOEL laptops before mass marketing. The Committee commented that the Taka 10,000 DOEL Primary 2102 model supported only Android Operating System (OS), but not Windows, while most Bangladeshi people were habituated with Windows OS; so the Committee recommended not to market DOEL Primary 2102 model laptops, but to go for producing Tablet PCs instead. As per recommendations of the Committee, Telephone Shilpa Sangstha Limited (TSS) temporarily stopped assembling that model and was considering of assembling Tablet PCs of cheaper price.

01 February 2012. One of the most circulated Bengali national dailies made a sensational headline, "Sale of DOEL Laptops Stopped". In the sub-headline the newspaper, quoting the Telecom Minister reported that after inauguration of DOEL by the Hon'ble Prime Minister a few number of DOEL laptops of Taka 10,000 were distributed. As per recommendations of a committee of experts formed that time to examine the performance of DOEL, assembly and marketing of DOEL Basic 2102 of Taka 10,000 has been stopped for the time being. Production of tablet PCs in near future is under consideration. Another Bengali newspaper also made a similar story.

This can be a fine example of yellow journalism at its best. The news stories give an impression to the general reader that TSS has been producing only one model (Primary model) of DOEL and the production and marketing of that only model is also stopped just after distributing a few pieces. Although the body of the news story tells that production of a particular model is stopped, the headline tells that production of DOEL is stopped. But the fact is that out of four declared models (Primary 2102, Basic 0703, Standard 2603 and Advanced 1612) of DOEL, three models were being produced and marketed on regular basis and only one model was not being produced for the time being.

A rejoinder was sent by TSS which was published in edited form by the newspaper after two days. But it mattered a little; the damage was done. The purposely made headline had done the trick. People who had been thronging to the only sales centre of DOEL at TSS gate, almost stopped coming. Wherever I went the first question I had to face was why the production of DOEL was stopped. Even after three months many people want to know when the production of DOEL will be started anew!

Not all newspapers made the same or similar headlines. But bad mouths spread faster and last longer. Some days later the same newspaper published yet another story that DOEL had nose-dived. After all, a reputed newspaper should maintain consistency!

This is just one example of the enmities the pioneer Bangladeshi brand laptops/netbooks DOEL has been facing. But it is natural in the present world of market economy. Whenever the interest of a group of businessmen is in under threat, they will devise some mechanisms to remove it. Around that time a proposal by the Ministry of Education for procuring 20,500 DOEL laptops was to be placed before the Cabinet Committee on Govt. Purchases (CCGP). The purpose of publishing the news articles mentioned earlier was apparently to stop that approval. The purpose was partially served as the long awaited approval of the said purchase proposal by CCGP was delayed by three weeks.

As a matter of fact, production of DOEL has never been stopped so far. Due to various factors like changing the product model, adopting new SOP (Standard Operating Procedure), accommodating fluctuating market demand, temporary resources constraints etc. the production tempo sometimes has to be adjusted. The production capacity of the DOEL plant is about 10,000 pieces per month. Mainly due to lack of sufficient working capital, often the full capacity can't be utilized.

As mentioned earlier, the Primary 2102 model was never assembled by TSS on large scale. Only a few numbers were produced prior to the inauguration and distributed (not sold) to some students. After recommendations of the Committee, the plan for assembling DOEL Primary2102 was kept in abeyance. Later TSS decided to assemble Primary model with some modifications in specifications on test basis on a limited scale (just 2,000 nos.). Those will be available in the market by July next. Other three models are being produced on regular basis. The specifications of the three models of DOEL presently available in the market are given below:

Table 1: Specifications and prices of different models of DOEL presently available in the market

A. Basic Model-0703 series

Specifications		Basic Model-0703P
Display		10.1" (1024*600) WXGA LED Backlight
Processor		Intel® ATOM™ Processor N 455 1.66GHz
Main Chipset		Intel NM10
Memory RAM		1GB DDR3
Graphics		Intel ® GMA 3150 (Integrated)
Storage HDD		SATA 250 GB
Multimedia	CD/DVD-ROM/Writer	NO
	Audio	HD Audio
	Speaker	2W Stereo Speaker
	Web Camera	Integrated 1.3 mega pixels

Communication	Wired Ethernet LAN	10/100M Ethernet Access
	WIFI	802.11 b/g/n
	Bluetooth	Yes
Input-Out Ports	USB	2xUSB 2.0 with chargeable USB
	Multi Card Slot	4-in-One
	VGA	Yes
	Mic In, Internal Mic, Headphone Out	Yes
	RJ45 LAN	Yes
	HDMI	N/A
	DC-In (Power Port)	Yes
Input	Keyboard	83 Keys Standard keyboard; printed in two languages (English & Bangla National)
	Touch pad	High Sensitive, Scroll Scope
Power	Standard Battery	6-cell Li-ion 4,400 mAH
Other	Color	3 Colors
OS		Windows/ Linux compatible
Price		BTD 15,500 /=
Warranty		6 Months

B. Standard Model-2603 series

Specifications		Standard Model-2603
Display		12.1" (1366*768) WXGA LED Backlight
Processor		Intel® ATOM™ Processor N475 1.8 GHz
Main Chipset		Intel NM10
Memory RAM		2 GB DDR3
Graphics		Intel ® GMA 3150 (Integrated)
Storage HDD		SATA 320GB
Multimedia	CD/DVD-ROM/Writer	NO
	Audio	HD Audio
	Speaker	3W Stereo Speaker
	Web Camera	Integrated 1.3 mega pixels
Communication	Wired Ethernet LAN	10/100M Ethernet Access
	WIFI	802.11 b/g/n
	Bluetooth	Yes
Input-Out Ports	USB	2xUSB 2.0 with chargeable USB
	Multi Card Slot	4-in-One
	VGA	Yes (Mini HDMI)
	Mic In, Internal	Yes

	Mic,	
	Headphone Out	Yes
	RJ45 LAN	Yes
	HDMI	N/A
	DC-In (Power Port)	Yes
Input	Keyboard	82 Keys Standard keyboard; printed in two languages (English & Bangla National)
	Touch pad	High Sensitive, Scroll Scope
Power	Standard Battery	Li-ion Polymer 4200 mAH
Other	Color	3 Colors
OS		Windows/ Linux compatible
Price		BTD 23,000 /=
Warranty		1 Year (Battery 6 Months)

C. Advanced Model-1612 series

Specifications		Advanced Model-1612
Display		14" (1366*768) WXGA LED Backlight
Processor		Intel ® Pentium® Processor P6200, 2.13 GHz
Main Chipset		Intel HM55
Memory RAM		2GB DDR3
Graphics		Intel ® GMA HD
Storage HDD		SATA 320GB
Multimedia	CD/DVD-ROM/Writer	DVD RW
	Audio	HD Audio
	Speaker	3W Stereo Speaker
	Web Camera	Integrated 1.3 Mega Pixels
Communication	Wired Ethernet LAN	10/100M Ethernet Access
	WIFI	802.11 b/g/n
	Bluetooth	Yes
Input-Out Ports	USB	3xUSB 2.0 with chargeable USB
	Multi Card Slot	4-in-One
	VGA	Yes
	Mic In, Internal Mic, Headphone Out	Yes
	RJ45 LAN	Yes
	HDMI	Yes
	DC-In (Power Port)	Yes
Input	Keyboard	86 keys Standard Keyboard; printed in two languages (English & Bangla National)
	Touch pad	High Sensitive, Scroll Scope
Power	Standard Battery	6-cell Li-ion 4400 mAH

Other	Color	2 Colors
OS		Windows/ Linux compatible
Price in Cash		BTD 28,500 /=
Warranty		1 Year (Battery 6 Months)

All prices are for black color. Tk.300.00 to be added for other colors.

If one compares the prices of DOEL laptops/netbooks with those of other brands of similar specifications, one will see a minimum difference of about 30%. When one buys a foreign brand laptop and it goes out of order, it is almost impossible for him to get it repaired. But this is not applicable for DOEL or TSS, being the local producer having sufficient spares. The keyboard is bilingual in English and Bengali (National Keyboard layout), the User Manual is in fluent Bengali. DOEL has already developed web-based and phone-based After-Sales Support Services. TSS being a Govt. organization, other Govt. offices and agencies can buy laptops directly from TSS without going through the hassles of tendering process. The legacy products of TSS have a reputation of maintaining a high standard of quality, so DOEL inherits a part of it. Branding of DOEL has also been done to some extent by the grand inauguration ceremony. TSS being a Government company, people have the belief that the prices are rational and value for their money is ensured. All these urge the competitors of DOEL to go all out against DOEL.

The journey of DOEL project started on a bumpy road. Originally the DOEL project was planned to be run by a Joint Venture (JV) Company named TSS-2M-TFT Technology Limited (T2T). TFT, a Malaysian company manufacturing mainly Television sets, was supposed to be the lead technical foreign partner in the JV Company. 2M Corporation was their local partner. The share ratio was TSS 35% and 2M-TFT 65%. But the foreign partner shipped mainly TV manufacturing old equipment at an exorbitant price and failed to play its due and expected role. Ultimately TSS had to take over the complete responsibility of the DOEL plant to meet Government commitments. Presently it is mutually agreed that the share ratio of DOEL plant will be TSS 70%, 2M 30% excluding TFT. The formalities are yet to be completed.

In spite of all the obstacles, DOEL made its debut on a digital date of 10.10.11. with the blessings of the Hon'ble Prime Minister Sheikh Hassina. The inauguration ceremony created a great hype among the common Bangladeshi people that helped early branding of DOEL. The logo of DOEL was chosen by the Hon'ble Prime Minister Sheikh Hassina herself.

As a Government corporate body, TSS could not sell the DOEL laptops/netbooks with pirated software. So the early DOELs were sold with only Linux (Ubuntu) OS. It is learnt that just after buying these laptops, most people erased the Linux OS and installed pirated versions of Windows OS. Since several months before the inauguration, TSS had been trying to get Windows OS from Microsoft (MS) free of cost. The Hon'ble Telecom Minister also helped TSS in this regard. Soon it was learnt that there was no way of getting Windows OS license free of cost. But it was revealed that TSS, the only Government institution in the world producing laptop computers, could get an Original Equipment Manufacturer's (OEM) license from MS creating an opportunity of providing MS Genuine Licensed Products to the mass people of Bangladesh at a very cheap rate. MS Bangladesh Ltd. (MSBD), the local office of MS in Bangladesh, came forward to cooperate in various ways. Firstly they provided Master Copy of Windows7 Enterprise (Evaluation Copy) and allowed to load it in

DOEL laptops free of cost. This helped TSS sell the DOEL laptops with a legal OS. Secondly, MSBD extended their all-out cooperation to TSS to get OEM license. As a result TSS signed the OEM Master Licensing Agreement with MS on 21 March 2012.

As a new brand by a company new in the business, it obviously involved huge risk to market the DOEL laptops on a large scale without field trial. So TSS adopted a restrained approach towards marketing DOEL. TSS refrained from publishing ads in the media except to counter negative propaganda. Yet people from all corners of the country took all the troubles to come up to the factory gate of TSS to buy a DOEL laptop. Initially it was planned to assemble 5,000 pieces of DOEL laptops/netbooks of each of the four models. But the plan to assemble Primary model was kept in abeyance at the recommendation of the Committee as mentioned before.

Early sales show that the Basic model has a huge demand among the low-end customers whereas the Advanced model has earned popularity among the high-end and corporate customers, the Standard model being the slowest of the lot. The stock of the first lot of 5,000 nos. Basic 0703 was finished very quickly and L/C was opened for 5,000 more. Due to a devastating flood in Thailand, a country that produces 40% HDDs of the world, the supplier delayed in shipping components of Basic model creating a temporary gap of supply of that model of DOEL in the market. Adequate stock of Standard 2603 and Advanced 1612 has been maintained so far.

There had been some misconceptions about DOEL that hinder its branding. The media had been writing since before the inauguration that DOEL would not be sold among the common people, but would be sold among the Government offices only. It had been told that about 40% of the components were or would be produced by TSS, Government was providing subsidy in DOEL etc. These are not based on facts.

Not a single component of the hardware of DOEL is actually produced by TSS, all components are procured from abroad. Specially the most important parts like the processor, display, RAM, hard disc etc. are all from world renowned brands. Only the packing materials and the user manual are made and printed in Bangladesh. What TSS presently does is actually sub-assembly of Complete Knock Down (CKD) components into Semi-Knock Down (SKD) ones and then assembly of complete laptops from the SKD components. The Basic 0703 model is assembled from about 68 CKD components whereas the Advanced 1612 model from as many as 107 components. This is, however, just half of the complete job. The rigorous processes of testing, aging, software loading etc. consume more time than assembling. A high standard of QC is maintained by the DOEL plant. TSS has also successfully integrated Bangla National keyboard (Unicode based) layout with DEOL laptops.

Earlier it was thought that TSS might produce the casings, keyboard, adaptor, different metallic and plastic parts etc. But in the present perspective it appears not worth doing so. The reasons are mainly two: economy of scale and quality assurance. It would not be economically viable for TSS to manufacture the hardware of laptops in so small quantity maintaining the high standard of quality in the competitive and sophisticated world of laptop industry. Actually all world renowned laptop brands like DELL, HP do not manufacture themselves the laptop hardware. Rather they give emphasis on R&D issue, design laptops of their own specifications and standard and order other equipment manufacturers to produce and assemble the hardware for their brand laptops, while they ensure the quality issue. There

is no realistic reason to think that TSS has already matured enough to outperform other famous brands.

Frankly speaking, there is no Government subsidy in DOEL. The only financial help received so far by TSS has come from Bangladesh Telecommunications Company Limited (BTCL), another Government-owned company under the same ministry. This help has been extended in the form of advances against supply of different equipment. The advances are to be adjusted by December 2012. TSS could take loan from commercial banks for its working capital. But that would increase the financial cost by about 20%. DOEL project is one of the most important tools directly contributing in building Digital Bangladesh. So the Government should extend its help to DOEL by granting TSS interest-free loan or long term soft loan to the tune of Taka 100 (one hundred) crore which would be tremendously helpful to DOEL.

Presently TSS is selling DOEL laptops/netbooks to the general public without focusing on profit. When the pricing of DOEL was made public, the dollar was selling @Tk.75/= or less. When the dollar jumped to Tk. 85/= or so, TSS could not enhance the price of DOEL laptops instantly to avoid probable negative impact on a new product. It is expected that TSS might earn some profit by next year with increased production and a little price appreciation, provided the dollar does not go higher again.

DOEL has created an opportunity for even the low income group of people to buy a laptop computer. Most buyers of DOEL buy a laptop for the first time in their lives. They have no experience whatsoever of using a computer. So they come up with a large number of complaints which are not actually any fault of the laptop itself, rather those are due to their ignorance about computer technology. For example, their complaints are like non-functioning of the web-cam, wi-fi, stopping of the computer after one hour etc. All these are due to the fact that those DOEL laptops are sold with Windows7 Enterprise (Evaluation Copy) which is purposely not activated so that the whole period of 90 days validity of the software remains available to the buyer. But the buyer does not know that the software has to be activated first in order to avail its full utility. So we have started activating the Windows7 Enterprise (Evaluation Copy) by our sales people at the sales centres before delivery to the customer. Now, judging the customer's level of computer knowledge, our sales team advises the customer to consult some younger students/relatives prior to coming to the DOEL customer care centres for remedy of their problems, if any.

Another common complaint is about overheating. The fact is that the heat sink of DOEL Basic 0703 model, by design, is not on one side of the barebone, but under the laptop (D-cover), so the laptop appears to be overheated when touched at the heat sink part. So this is not a technical problem of DOEL Basic model. In fact, many models of reputed brands have more overheating phenomena than DOEL Basic. So far not a single DOEL laptop has been reported to have hanged or burnt due to overheating.

Before selling in the market, performances of each of the three models of DOEL were tested by BUET. BUET opined that the batteries of Basic 0703 and Standard 2603 models needed to be enhanced so that DOEL could compete at par with other foreign brands. Now almost 9,000 DOEL laptops are in the field. And the field report coincides with the BUET report. The battery of the Basic model now appears to be the weakest point of DOEL. The battery performance of the Standard model is also not up to the mark. Already necessary measures have been taken to improve the battery performance. The battery capacity of the Basic 0703 model has already been doubled (6-cell in place of earlier 3-cell ones). In spite of its weak

battery, DOEL Basic 0703 model has earned such popularity that almost 5,000 pieces were sold within a month without any advertisement. After enhancement of the battery capacity, the new Basic 0703P is again available for the general public.

A number of Evaluation copies of DOEL laptops were distributed among different organisations, like the Hon'ble Prime Minister's Office, Bangladesh Army, A2Y Project, Bangladesh Computer Council, Microsoft Bangladesh Office and so on. Feed backs were been collected from the users with the aim of improving the quality. Up to 23 February 2012 TSS had been selling DOEL laptops only from its Sales Centre at TSS gate. After gaining the valuable early experiences, TSS opened its second sales centre of DOEL at Ramna (2nd floor, One Point Service Centre Building, Gulistan, BTCL Campus). Soon TSs will open some more sales centres at Sher-e Bangla Nagar, Gulshan etc. In the next few months TSS is going to deploy district level Sales and Support Service Agents.

There had been frequent talks about DOEL Primary 2102 model. The processor is VIA 8650 chip which supports only Android and Windows CE OS. Windows CE has been declared obsolete by MS, although in some countries it is still being used. Android is an open-source OS, but not so popular among the common people of our country. No doubt, comparatively cheaper components are used in this model in order to keep the price level within the reach of the low-income group of people. So ensuring quality is a big challenge. During this period TSS has been exploring the ways and possibilities of making some upgrades in the components of DOEL Primary model and hopefully will be marketing it by July next with Windows compatibility so that it becomes an actual computer, not a toy. It is expected that it will surpass the popular demand of DOEL Basic model.

With the introduction of DOEL in the market, the prices of all the brand computers have come down by at 5 to 10 percent. In the coming days DOEL is going to introduce its Corei3 model by June next. In fact, 1,000 pieces of DOEL Advanced 1612i3 will be supplied to Bangladesh Army by 30th June 2012. The 20,500 pieces of DOEL laptops to be supplied to the Education Ministry will also be of the same model. Those will be preloaded with Windows7 Professional, Office Professional, MS Security Essentials (Anti-Virus) plus a package of 16 Tutorial Software called Academic Select Plus. Laptops worldwide are generally sold with 1 (one) year warranty with the battery's warranty of six months. DOEL laptops are no exception except for these 20,500 pieces for which the warranty has been extended up to 4 (four) years.

Along with these Government orders, adequate quantity of DOEL Advanced 1612i3 model laptops will be sold in the open market for the general public from July 2012. To be at par with other brands, all these laptops will be supplied along with accessories like Optical Mouse, Carrying Bag, 8GB Pen Drive. By August the Corei5 model of DOEL is planned to make debut, and Corei7 by December next. Assembly of DOEL Tabs is also under active consideration.

Challenges ahead of DOEL are many. Presently about 60 operators (majority females), 10 staff and 20 engineers and officers are working in the DOEL plant. The OEM agreement with Microsoft has created a new opportunity for TSS to be the Government distributor of MS products in Bangladesh. With the onus of Microsoft OEM partnership and the obligations of After Sales Support Service at district level, some more software and hardware engineers need to be recruited. The compensation packages for the operators and other officials must be

enhanced in order to retain them. The product line must be upgraded on a regular basis to meet the market demand. A good R&D section is to be developed as well.

The bottom line is that DOEL is apparently coming out of its hard times. The obstacles and hindrances DOEL has been facing so far, have made it stronger. The operators and officers of DOEL plant have gained in valuable and sufficient experience and have stuck to their commitment to DOEL although being paid a paltry remuneration. With some big orders from a few big Government bodies, the financial hardship is finding a ray of light at the end of a tunnel. So, after a bumpy take off, DOEL is now ready to fly high.

A. A. MD. MOYASHIR
General Manager (Plant & Commercial)
Telephone Shilpa Sangstha Limited
aamoyashir@gmil.com

(The views expressed here are personal views of the author, not of TSS.)