

Asian Sun Rising

Japanese Market Study by JIIA

The Japan Industrial Imaging Association (JIIA), supported by JIIA member companies as well as other non-member companies, collects market statistic data mainly for the Japanese market and is published every year. Based on this study the author highlights some significant trends of the Japanese Machine Vision market.



With special focus on the area camera, JIIA compared the data collected for the Japanese financial years of the 2007 and 2006 (the Japanese financial year is from the 1st April of a given year till the 31st March of the following year).

As the table on the right shows, the total quantity sold based on ex-factory in 2007 was 3.2% higher than in 2006. However, the members that provide their data to JIIA, represented as 'JIIA Member' above, sold 17.5% less than during the previous year. On the other hand, the results for the other companies indicated as "JIIA Non-Member" in the table, are evidently growing stronger.

Due to a lack of available data regarding the sold amount, a definite information analysis is not possible for the time being. The rapidly decreasing ex-factory quantity sold by JIIA member companies ought to raise anxiety.

Strong Asian Market

Chart 1 shows the distribution of cameras sold by JIIA member companies with regard to their destination. Compared to the data of 2006, the export to the Asian market increased to more than

(Quantity based on Ex-Factory of Camera Manufacturer (pcs.))

	Financial Year 2006	Financial Year 2007	
JIIA Member	248,155	204,775	▼17.5%
JIIA Non-Member	90,000	145,225	△61.4%
Total	338,155	349,000	△3.2%

15%, and now exceeds more than 10% of the total quantity exported. Roughly 13% of exports to Korea, and roughly 57% of exports to China are proof that the market for Machine Vision in Asia is strongly increasing.

On the other hand, it has always been the case that the export percentage to Europe has been roughly at 15%, but in 2007 it has begun to fall down to little less than 5%. In addition, the export to North America is reduced to about 25%.

A comparison with the statistical data for the AIA/EMVA's production is necessary. Regarding the digital interface, it is possible to think that Japanese corporations are behind their European counterparts. From now on, JIIA will need to take more initiative to improve the relative importance of new digital interfaces like CameraLink, IEEE1394 and especially GigE and other new standards.

Within Japan in general, the market share has been stable for several years.

Image Resolution

Let's take a look at the image resolution trend next. Chart 2 represents the deeply rooted market share of the TV standard. Combined with VGA, the total market share is a little more than 70%. However, the market share used to be even higher at slightly over 80% in 2004. Now it has decreased by 10% to 70%. It is not because 1M or 2M have had an increase in usage. Moreover,

and worthy of a special mention, 4M~5M cameras have had a greater prominence. This result is of great interest.

Interfaces

We will now take a look at the market share of the different interfaces. Chart 3 shows that the analogue system, based on quantity sales, had an overwhelming percentage share of the market at 80%. Only four years ago, in 2004, digital interfaces had a mere 5% of market share. However, it penetrated the market and in 2007 it collectively had a more prominent total of

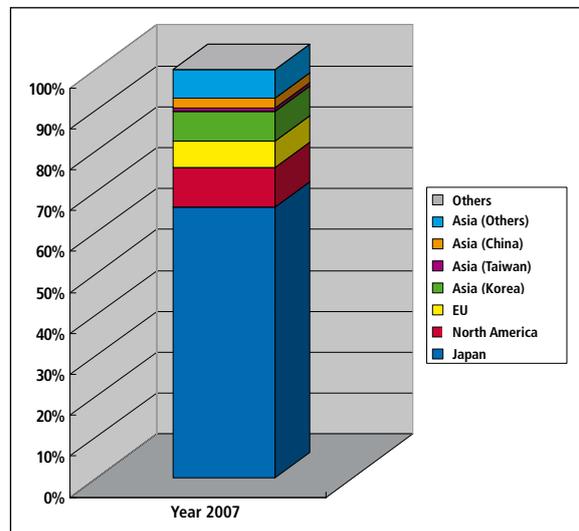


Chart 1: Distribution of Ex-Factory Camera Sales

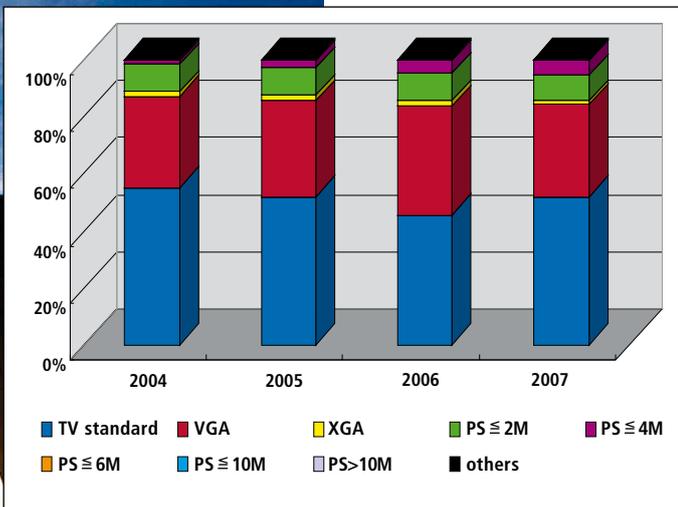


Chart 2: Image Resolution Trend

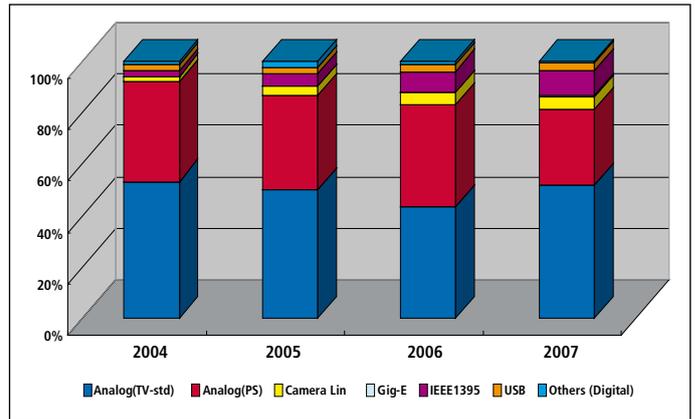


Chart 3: Interface Trend

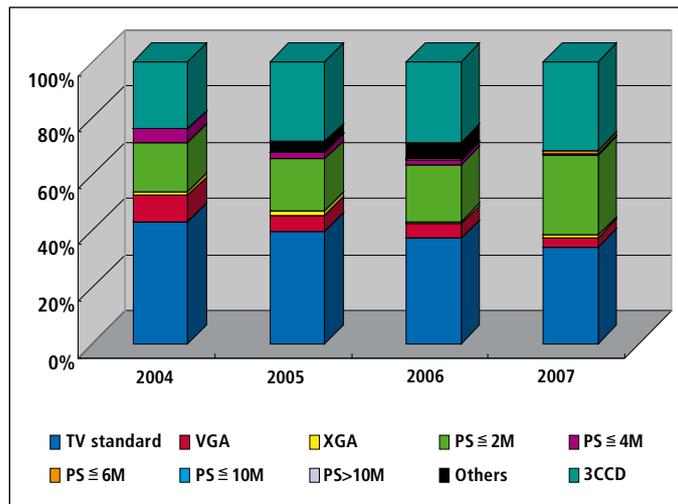


Chart 4: Picture Resolution Trend for Color Cameras

20% of market share. Within the detailed classification of digital interfaces, Camera-Link only had a marginal increase from 2006 to 2007.

Manufactured goods that were based upon the IEEE1394 standard, increased by up to 10% in total. The reason of this is because more and more IEEE1394 products have been released into the market. It is most certainly possible to say that the rise in the market share of the IEEE1394 standard is of great interest.

However, concerning GigE, the market share has not really increased from a total of 1%. The reason behind this is, as mentioned previously in the statistical data of EMVA and AIA above: Japan is still behind their European counterparts concerning the emergence of GigE, and this is of great concern.

Color Cameras

Finally, looking at color cameras, Chart 4 shows the relative comparison of sales for different camera resolutions. In terms of quantity the TV standard is still by far the strongest, having around 80% of market share. However, looking at the turnover, the

TV standard has only 34% of the market.

Chip resolution of up to 2 million pixel has about 28% of the market and 3CCD has 32% of the market. TV Standard is becoming cheaper and cheaper. The market demand for high accuracy processors using higher resolution cameras or 3CCD cameras is ever increasing.

Outlook

At the time I was asked to write this article, it was a historically bad time worldwide, right in the midst of the financial crisis. Before, and ever since 2001, the Machine Vision market in Japan had developed and grown favorably. But in spite of this, the financial crisis has disrupted the recovery and favorable growth, which has been felt strongly in Tokyo.

At this certain point of time, at the end of the first half of the Japanese financial

year, one can usually forecast the expectations of 2009, in normal times. However, semiconductors, electronic components, the automotive industry market and related products together have more than 70% of market share in the Asian market, and it is very difficult to forecast the coming year due to the financial crisis.

After the 'burst of the bubble', in the beginning of the 1990s, Japan has been concentrating thoroughly to restore the domestic financial situation, especially for the reorganization of the financial environment. Japan has spent a lot of effort to improve the economic climate and this period has been coined as the so called 'lost 10 years'. Because of the bubble burst, and its restoration, the Japanese economy has had a rather sluggish recovery compared to the British and American economies. As a result of this sluggish recovery, the Japa-

nese economy has not been so hard-hit compared to the British and American economies during this global financial crisis.

The Japanese economy relies heavily on exports and imports. The Japanese Yen exchange rate has appreciated 20% over the US dollar and has also appreciated 30% over the Euro, and this rapid increase in strength in the Yen has affected the Japanese exports negatively. And in turn the Machine Vision market has been affected accordingly.

In this tough and extremely unfortunate global financial crisis, all countries must help one another to overcome this global financial crisis, and bring back the Machine Vision market to its normal state of activity, as soon as possible.



► **Author**
Sachio Kiura
 Director/Secretary
 General of Japan
 Industrial Imaging
 Association
 Founder and President of
 Symco Corporation

► **Contact**
 Japan Industrial Imaging Association,
 Tokyo, Japan
 Tel./Fax: +81 3 3716 3933
 s-kiura@jiaa.org
 www.jiaa.org

Symco Corporation, Tokyo, Japan
 Tel.: +81 3 5768 2081
 Fax: +81 3 3794 5282
 kiura@symco.co.jp
 www.symco.co.jp