GLOBAL DIGITAL SIGNAGE MARKET

By Hardware, Software [Edge Server, Distribution & Scheduling, Content Management], Application [Commercial, Infrastructure, Institutions, Industrial], Products [Indoor & Outdoor] & Geography

- Forecast (2014–2020)
MarketsandMarkets is a global market research and consulting company based in the U.S. We publish strategically analyzed market research reports and serve as a business intelligence partner to Fortune 500 companies across the world. MarketsandMarkets also provides multi-client reports, company profiles, databases, and custom research services.

MarketsandMarkets covers thirteen industry verticals, including advanced materials, automotives and transportation, banking and financial services, biotechnology, chemicals, consumer goods, energy and power, food and beverages, industrial automation, medical devices, pharmaceuticals, semiconductor and electronics, and telecommunications and IT.

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1 INTRODUCTION

1.1 KEY TAKE-AWAYS

- Market statistics with detailed classifications and splits by revenue and volume
- The key trends related to the hardware, software, and the applications that shape and influence market
- Analysis of the global market with special focus on high growth application in each vertical and fast growing application market segments
- Impact analysis of the market dynamics with factors currently driving and restraining the growth of the market, along with their impact in the short, medium, and long term landscapes
- Detailed Porter’s analysis, market life cycle analysis of digital signage products and its respective markets
- Detailed segmentation of global market by product with a focus on cross segment markets like application and industry verticals
- Illustrative segmentation, analysis, and forecast of the major geographical markets to give an overall view of the global market
- The future of the global market and industry from both technical and market-oriented perspectives with techno-market oriented roadmaps till 2020
- Detailed competitive landscape with identification of the key players with respect to each type of market, in-depth market share, and market share rankings
- Strategic profiling of the key players of the digital signage system, and comprehensively analyzing their market ranking, recent developments, investments, and core competencies in each segment
- Identification of emerging trends and analysis of the opportunities in the market for the stakeholders by identifying high growth segments of digital signage market
1.2 REPORT DESCRIPTION

Digital signage refers to any of the electronic display that broadcasts television programming, menus, information, advertising and other contents. Digital signs utilizing technologies such as LCD, LED, plasma displays, or projected images to display content is found in both public and private environments, including retail stores, hotels, restaurants, and corporate buildings, amongst other locations. Because of its inherent dynamic nature where in the content may be frequently updated, and also by employing real-world interface such as embedded touch screens, image capture and gesture recognition, it is gaining wide acceptance in the market.

Digital signs rely on a variety of hardware to deliver the content. The components of a typical digital sign installation include one or more display screens, one or more media players, and a content management server. Sometimes two or more of these components are present in a single device but typically there is a display screen, a media player, and a content management server that is connected to the media player over a network.

The report deals with all the driving factors, restraints, and opportunities with respect to the digital signage market, which are helpful in identifying trends and key success factors for the industry. The report also includes qualitative analysis on the market, by analyzing complete pricing and cost analysis of products, Porter’s analysis of the market and SWOT analysis of the players. The report also profiles all major companies active in this field. This report provides the competitive landscape of the key players, which covers all key growth strategies. The report also formulates the industry trends of digital signage market with emphasis on market timelines and technology roadmaps, market and product life cycle analysis.

Lastly, the digital signage market is segmented by geography across North Americas, Europe, the Asia-Pacific (APAC), and ROW (Rest of the World) and further sub-segmented by countries.

Major players in this field includes but are not limited to: ADFLOW Networks (Canada), Cisco System Inc. (U.S.), Hewlett-Packard Company (U.S.), Keywest technology (Samsung Corporation (South Korea), NEC Display Solutions Ltd (South Korea), BrightSign LLC (U.S.), Polk Audio (U.S.), Onelan Ltd (U.K.), Panasonic Corporation (Japan), Winmate Communication Inc (Taiwan), and Scala Inc. (U.S.) among others.
1.3 MARKETS COVERED

The figure below shows the complete list of aspects covered in this report in great detail.

The figure above shows the various aspects covered in this research study on digital signage market. Three major aspects of the complete market are covered in this report. They are the Market Analysis, Market Classification, and Market Landscape. Market Overview along with Market Dynamics and additional qualitative analysis constitute for Market Analysis. ‘Market Classification’ encompasses segmentation and sub-segmentation of the market by Hardware, Software, Product, Applications, and Geography. Lastly, the current market landscape is covered with detailed competitive landscape and company profiles of all key players across the ecosystem.

The market includes all types of displays such as LCD, LED, Plasma and Projector but not the CRT ones.
1.4 STAKEHOLDERS

- Display Manufacturers
- Consumer electronics and display companies
- Raw material & manufacturing equipment suppliers
- Semiconductor Component Vendors
- Content developers
- Advertising agencies
- Original Equipment Manufacturers (OEMs) (end-user application or electronic product manufacturers)
- ODM and OEM technology solution providers
- Distributors and Retailers
- Research and Consulting organization
- Technology Standards Organizations, Forums, Alliances and Associations
- Accessories manufacturer

1.5 REPORT ASSUMPTIONS

All the general assumptions, terminologies & application key notes for market statistics & calculations, year-wise assumptions, forecast assumptions and related important aspects for this research study are mentioned below.

The report covers components, products, applications and geography. Components cover hardware and software, in which hardware includes displays, media players and mount & other accessories. The software part of the components include edge server software, distribution and scheduling software, content management systems and others (analytics). The digital signage products consist of indoor and outdoor. The indoor classification of the digital signage market products includes Entertainment Facilities, Hospitality Centers and Health Care Facilities.
Applications have commercial, infrastructure, institutions and industrial. The geography section has North America which includes U.S., Canada and Mexico. Europe includes U.K., Germany, Italy, France and other European countries. In the Asia Pacific (APAC) is covered extensively and the APAC covers China, Japan, South Korea, India and other countries. Rest of the world (ROW) mostly covers major regions like Middle East and Africa. The ‘other’ segment of ROW includes many countries like Argentina, Brazil, Egypt, Australia and many others.

### 1.5.1 ASSUMPTIONS & GLOSSARY

Broad-level general assumptions, terminology used in this report and key notes on nomenclature & grouping in applications, products & technology are listed in the table below.

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Assumption &amp; Description</th>
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<tbody>
<tr>
<td>Currency value</td>
<td>All the forecasts are done with the revenue and volume calculated under the standard assumption that is globally accepted currency - the U.S. Dollar's value remains constant over the next five years.</td>
</tr>
<tr>
<td>Exchange rates and currency Conversion</td>
<td>For conversion of various currencies to the U.S. Dollar, average historical exchange rates were used according to the year specified. For all historical and current exchange rates required for calculations and currency conversions - OANDA - website was used in this research study.</td>
</tr>
<tr>
<td>Average Selling Prices (ASP)</td>
<td>The ASPs (average selling prices), wherever applied, are calculated using all kinds of suitable statistical and mathematical methods and considering external qualitative factors affecting the prices. All the calculations interconnected between the tables are done considering the finalized ASPs.</td>
</tr>
<tr>
<td>ASP for products</td>
<td>For calculating the ASP of products, the manufacturing cost of the popular low cost product is considered.</td>
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<tr>
<td>ASP for Displays</td>
<td>The ASP for display is calculated by taking into accounts the individual displays’ ASP and averaging it out to the unit shipment.</td>
</tr>
<tr>
<td>Niche market segments</td>
<td>For niche market segments where accurate data of the respective time line was not available, the data was calculated using trend line analysis. In some instances, where mathematical and statistical models could not be applied to arrive at the number, generalization of specific related trends to that particular</td>
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</table>
### Parameters

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Assumption &amp; Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualitative analysis</td>
<td>The qualitative analysis done from the quantitative data arrived at solely based on the understanding of the market and its trends by the team of experts involved in making this report.</td>
</tr>
<tr>
<td>Mutually Exclusive and Exhaustive classification</td>
<td>All market segments and sub-market segments listed in this report through various forms of classification are considered to be mutually exclusive of each other, with no overlap among them. Also, for each type of classification, all sub-market segments listed under a market are exhaustive in nature, i.e., they cover the whole market. In cases where other fields may be present, the listed market segments do not cover the entire market, a category “others” is mentioned in the split-up of market statistics in the market data tables. Throughout the report, in any classification, non-inclusion of “others” field in market tables directly implies that listed market segments fully cover the respective parent market.</td>
</tr>
<tr>
<td>Global economic downturns</td>
<td>The global economy has a direct impact on any market in the semiconductor industry, including the wireless chipsets market in consumer electronics. Regarding the global economy landscape, no recessions, downturns, economic collapses of any sort are considered while forecasting any market in this research study.</td>
</tr>
</tbody>
</table>

Source: MarketsandMarkets Analysis

### 1.6 RESEARCH METHODOLOGY

This research study involves the usage of extensive secondary sources, directories, and databases such as Hoovers, Bloomberg, Business-week, Factiva, and One-Source, and so on to identify and collect information useful for this extensive technical, market-oriented, and commercial study of this market. The primary sources are mainly industry experts from audio and related industries as well as preferred suppliers, manufacturers, distributors, administrators, solution providers, technology developers, alliances, standards & certification organizations from companies, organizations related to all the segments of this industry’s value
chain. All primary sources were interviewed to obtain and verify critical qualitative & quantitative information as well as assess the future prospects.

The following illustrative figure shows the market research methodology applied in making this report on the digital signage.

**FIGURE 1**

**RESEARCH METHODOLOGY**

### Secondary Research
- Value chain
- Key players
- End user application
- Market classification
- Annual report of key market players
- Geographic market with their market share
- Market trends
- Technology developments

### Primary Research
- Number of validations
- Competitive and Iap Validation
- Market Dynamic Validation

### Market Crackdown
- Top-Down Approach
- Bottom-UP Approach
- Data Triangulation
- Qualitative and Quantitative Analysis
- Market Segmentation
- Market Estimation
- Market Forecasting

Source: MarketsandMarkets Analysis
In the extensive secondary research process for this research study, several hundreds of secondary sources such as certified publications, articles from recognized authors; white papers, annual reports of companies, gold standard and silver standard websites, directories, and databases were used to identify and collect information useful for this extensive technical and commercial study of this global market.

In the extensive primary research process done for this research study, the primary sources – industry experts such as CEOs, Vice Presidents, Marketing Director, Technology & Innovation Directors, Founders and related key executives from various key companies, organizations in the digital signage industry been interviewed to obtain and verify both qualitative and quantitative aspects of this research study.

Secondary research was mainly used to obtain key information about the industry’s revenue pocket, market’s monetary chain, total pool of key players, the end-user applications, market classification & segmentation according to industry trends to the bottom-most level, geographical markets and key developments from both market and technology oriented perspectives.

After the complete market engineering to calculate market statistics, with market size estimations, market forecast, market crackdown & data triangulation (the methodology for these quantitative data processes is explained in the sections below), extensive primary research was mainly used to gather information, verify and validate critical numbers arrived at, segmentation types, industry trends, key players, competitive landscape of each type of product markets, key market dynamics such as drivers, restraints, opportunities, burning issues, winning imperatives, key player strategies, technology roadmaps, and product lifecycle.

For the complete market engineering done for the total market crackdown, top-down, bottom-up approaches were used extensively along with several data triangulation methods to perform market estimation and market forecast for all the overall, segment and sub-segment markets listed in this report. Extensive qualitative and further quantitative analysis was also done from all the numbers arrived at the complete market engineering process, to list key information throughout the report.
1.6.1 MARKET SIZE ESTIMATION

Both - “Top-Down” and “Bottom-Up” approaches were used to estimate and validate the market size of the product market and the approaches were also used extensively for market size estimation of various other dependent sub-markets in the overall digital signage market. The research methodology used to estimate the market size also includes the following details:

The key players in the industry and markets were identified through secondary research and their market value was determined through primary and secondary research. They include study of the annual and financial reports of top market players and also extensive interviews for key opinions from leaders such as CEOs, Directors, and Marketing executives.

All the percentage shares, splits, and breakdowns were determined using secondary sources and verified through primary sources. All the possible parameters that affect the markets covered in this research study have been accounted for: viewed in extensive detail, verified through primary research, and analysed to get the final quantitative and qualitative data. This data is consolidated and added with detailed inputs and analysis by MarketsandMarkets, and presented in this report.

The following figure shows an illustrative representation of the complete market size estimation process implemented in this research study, for overall market size estimation, in a consolidated format.
Firstly, the Bottom-Up procedure was implemented in arriving at the overall market size of the market from the revenue of the key players (companies), shipments deployed and their market shares in each application segment.

Calculations based on the revenue and shipments of key companies identified in each application market led to overall market sizes of the markets. Sum of the three application market sizes was carried out to establish the total market size. This overall market size was used in the Top-Down procedure to estimate the market sizes of all the other individual markets in the market segmentation by geography via percentage splits from secondary and primary research.
For calculation of each type of specific market segment, the most appropriate immediate parent market size was used for implementing top-down procedure. Bottom-Up procedure was also implemented on individual market segment sizes obtained through primary & secondary research to arrive at the overall market size and individual geographical market sizes.

Market shares were then estimated for each of the companies to verify the revenue & shipment shares used earlier in the Bottom-Up procedure. With data triangulation procedure and validation of data through primaries, the exact values of the overall parent market size and each individual chipset market size were determined in this market research study.

1.6.2 MARKET CRACKDOWN AND DATA TRIANGULATION

After arriving at the overall market size from the market size estimation process explained above, the total market has to be split into several segments and sub-segments, by various types of classifications. In order to complete the overall market engineering process and arrive at an exact statistics for all the market segments and sub-segments, data triangulation & market crackdown procedures explained below, were implemented wherever applicable.

The following figure shows the market crackdown structure and the data triangulation procedure implemented in the market engineering process of making this report.
The figure above shows the core data triangulation procedure used in this report for every market, sub market, and sub-segment. The percentage split-ups of various major market segments (by application and geography) were used to arrive at the market sizes of the major segments of each market by product and geography.

The percentage split-ups of the sub-segments categorized under the application market sub-segmentation were used to arrive at the market sizes of each of the individual sub-segments of the end-user verticals in the market classification of the overall digital signage market by application and similarly for market by geography.

The exact reverse of the above procedure, that is, using “Bottom-Up” from application and geography segments to arrive at the overall market size and “Top-Down” from overall digital signage market size to arrive at the individual company (key players) revenue was also done to validate all the market sizes arrived at, in the procedure mentioned above and shown in the figure.
Similarly, the market size volume and average selling prices (ASPs) of the digital signage in each of the market segments were arrived at by similar methods and procedures. Data was also triangulated among the revenue, volume, and ASPs. Thus validation of every data was done by data derivation from the various aspects of the respective market segments and market aspects.
2 EXECUTIVE SUMMARY

Digital signage is one of the most promising and upcoming media in the field of information and advertising network. Digital signage is also known as Narrowcasting or electronic signage. The technological innovations such as touch screen technology; near field communication technologies etc. have created the opportunities for this market. Its market is whole and sole depend on the end results when it is viewed by individuals at different places and locations. Its visibility and user friendly feature easily catches the interest of the people in comparison of the printed media formats which require high investment and more time. Whereas, digital signage is a more effective source as the information can be changed instantly without any investment over the content creation. This also created the bigger market for the software industry as the content price is designed according to the requirement of the loader and also on the base of different regions.

There is an increasing trend towards the adoption of interactive displays that uses technological capability such as interactive dashboard, gesture recognition and embedded location based maps. This has given a growth momentum to mature markets such as the U.S. and have opened number of avenues for emerging markets such as India and the Middle East. In terms of software, Analytics is expected to witness the highest growth, thanks to advancement in business intelligence for retail and other advertising media.

The market has become quite competitive with the presence of large number of players. Hardware leaders such as Samsung have diversified its digital signage portfolio by acquisition, while software giant such as Cisco Systems Inc. (U.S.) has acquired hardware players which has consolidate its product offering. The intense competition is likely to trigger a competitive pricing war across both hardware and software offerings.
### TABLE 1

**GLOBAL DIGITAL SIGNAGE MARKET VALUE, BY GEOGRAPHY, 2013-2020 ($MILLION)**

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</table>

Source: MarketsandMarkets Analysis

North America accounted for the largest market share, XX% of the digital signage market in 2013. Europe with a market share of XX% was the second largest contributor in terms of revenue in 2013. The major countries included in the European region analysis are the U.K., Germany, Italy and France. APAC is growing the highest CAGR of XX% from 2014 to 2020. It is expected that the APAC region would emerge as the second largest market for digital signage by 2020. This growth is attributed to increasing demand of the digital signage from China and other emerging pockets such as India.
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Source: MarketsandMarkets Analysis

In terms of application, commercial application vertical accounted for the highest market value, i.e. XX% with total revenue of $XX billion in 2013 and is expected to grow to $XX billion by 2020, at a CAGR of XX% from 2014 to 2020. During the same period, infrastructure application is expected to increase its market share marginally by registering a healthy growth at a CAGR of XX% from 2014 to 2020.
TABLE 3

GLOBAL DIGITAL SIGNAGE MARKET VALUE, BY COMPONENTS, 2013-2020 ($MILLION)

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<td>Total</td>
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</tbody>
</table>

Source: MarketsandMarkets Analysis

The display market for the digital signage is tremendously growing because of the increasing applications in the Hardware sector globally. The hardware market is expected to grow from $XX billion in 2013 to $XX billion by 2020, at a CAGR of XX%. The Software market is smaller as it is generating $XX billion of the total digital signage market in 2020 and it is expected to grow at a CAGR of XX% from 2014 to 2020.
3 MARKET OVERVIEW

3.1 INTRODUCTION

The market value for the set up can vary from different infrastructure as some are for a large mass or some are for a small mass of people. In this report the market is analyzed from an overall perspective.

![Digital Signage Market Segmentation Diagram]

Digital Signage Market Segmentation

It is segmented across hardware, software, product, application, and Geography. Digital signage is used into more than 5 components and there are four major display technologies for digital signage- LED, LCD, Plasma and Projectors. Corporate, retail sector, indoor venues, transportation and government are the main applications for digital signage systems. The detailed segmentation across each primary segment is given in the above tree diagram.
3.2 PORTERS’ FIVE FORCE ANALYSIS

FIGURE 5

PORTER’S FIVE FORCES MODEL: DIGITAL SIGNAGE INDUSTRY

Source: MarketsandMarkets Analysis
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