35 Years of Computing: A Brief Timeline p52 | Diagnostic errors threaten patient safety, AI saves the day p56 | India harnessing tech for an agricultural turnaround p59 | The after-life of Pi p62

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VOL. 34 | ISSUE 9 | SEPTEMBER 2021

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35TH YEAR
1987 - 2021

Enterprise Choice Awards: Vol II

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EXPLORE



PCQ ENTERPRISE CHOICE AWARD 2021

Solutions, services that won enterprises' hearts

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Printed and published by Pradeep Gupta on behalf of CyberMedia (India) Ltd, printed at printed at M/s Archna Printers, D-127, Okhla Industrial Area, Phase-1, New Delhi, published from D-74, Panchsheel Enclave, New Delhi-110017. Editor: Sunil Rajguru. Distributed in India by IBH Books & Magazines Dist. Pvt. Ltd, Mumbai. All rights reserved. No part of this publication may be reproduced by any means without prior permission.

NEW

#PCQuestTroubleShoot
p8

EXPLORE

35 Years of CPU: A Brief Timeline
p52

PCQ ENTERPRISE CHOICE AWARD 2021

Cloud Computing Service
p12
AWS continues to dominate the Cloud Service space

Enterprise Resource Planning
p16
Both SAP and Oracle eye bigger piece of the ERP pie

Finance and Accounting Software
p20
Tally continues to lead the Finance and Accounting market

Business Intelligence / Business Analytics
p24
A sweeping victory for Microsoft

Artificial Intelligence
p28
IBM is the most trusted enterprise AI solution

Robotic Process Automation
p32
Automation Anywhere wins the RPA race

Email Solution
p36
Outlook wins the race, Gmail follows hard on the heels

Unified Communications
p40
Cisco continues to be the numero uno in UC

Video Conferencing
p44
Zoom steals the spotlight as the most loved VC solution

Bandwidth Management and Optimization
p48
Juniper emerges winner with Cisco a close second

HEALTHTECH
p56
Diagnostic errors threaten patient safety, AI saves the day

AGRITECH
p59
India harnessing tech for an agricultural turnaround

COMPUTE
p62
The after-life of Pi

CYBERSECURITY
p66
Ace the rapidly evolving cybersecurity game with Adaptive Cybersecurity

HOT LAUNCHES
p68





Sunil Rajguru
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Digital financial inclusion revolution

RBI's Account Aggregator seems a good bet

At the beginning of the millennium hundreds of millions of Indians had absolutely no access to the Indian financial system. They had no bank accounts and no means to get legitimate credit. Many resorted to local moneylenders and paid exorbitant interest rates, sometimes becoming bonded labourers for life to repay those debts.

In 2014 the Pradhan Mantri Jan Dhan Yojana was launched and was a spectacular success. Today more than 430 million Indians avail this facility, finally coming into the banking system. It made it to the Guinness Book of World Records for the most bank accounts opened in a week as part of an inclusion programme. Rural Indians started getting seamless Direct Bank Transfers from almost all government departments.

2016 was a landmark year for online finance. The demonetisation programme pushed many Indians to try for digital payments and the upward trend continues to this present day. Brands like Paytm became household names. In 2016 UPI (Unified Payments Interface) was launched by the government and crossed 100 million users this year.

All this was facilitated by the Jio Revolution which made India the economical mobile broadband capital of the world. It was all seamless during the Covid Crisis by which time every India was quite familiar with the world of online money. As a medium, our smartphone can take care of most of our buying needs today.

Now we have the Reserve Bank of India's Account Aggregator framework, which will allow consumers to consolidate all their financial data into a single portal for smoother transactions. In the first week, the GST network, 8 banks, 4 NBFCs said they would be joining the platform which will strengthen India's entire lending ecosystem and democratise credit. What UPI did for online payments, account aggregation plans to do for the overall credit system in this country.

Tax authorities, insurers, pension funds, financial startups, tech giants like Amazon, telecom operators, healthcare players... they could all come aboard in the future. If privacy issues are sorted out then the credit system will become really convenient for small businesses and the average citizen. Taking a loan of different types and different time periods will be seamless for all.

The endgame of all this is a digital currency and the democratization allowed by cryptocurrencies. The government is planning to come out with a bill on this aspect of the economy and one hopes that it will be a progressive rather than a regressive bill. In an era that is heading towards rapid digitization and techceleration, the financial system cannot be left behind.

100% Indians coming on to the banking-credit system seemed like a pipe dream in 2000, but could actually be achieved in the 2020s.

Sunil Rajguru

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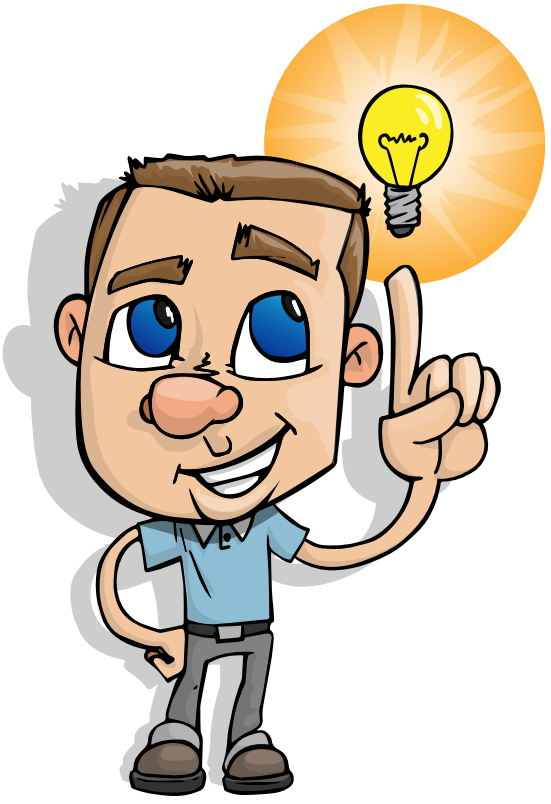
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#PCQuestTroubleShoot

✉ ashokpa@cybermedia.co.in

I am looking for a printer to print digital work for business - higher DPI and on any media.

■ *Nitin Jain*

I have two suggestions - HP DesignJet and HP Latex printers. For large format printing, you can get a Latex printer. You can print from wallpapers to banners to backlit materials with this. For high high-definition prints, HP DesignJet is the right choice. This printer uses pigment-based HP Vivid Photo Inks with RGB colours to deliver awesome prints. It can also print large formats, but there is one difference between these two – DesignJet prints cost you less as compare to Latex. So if you are going to print in volumes, then it's better to buy a DesignJet.



■ *Ashok Pandey, CyberMedia Labs*

Which laptop is perfect for music production?

■ *Puneet Yadav*

You need a laptop with at least a Core i5 or higher CPU, and 8 GB RAM or higher. I don't know about your budget, so I would suggest getting a dedicated graphics card and you need plenty of storage as well so go for 512 GB SSD for OS along with 1 TB HDD for storage. Additionally, you need a laptop with multiple connectivity ports, including 2 USB 3.1, HDMI, RJ-45, headphone/microphone combo, etc.

■ *Ashok Pandey, CyberMedia Labs*

I am an architect, looking for a high-performance laptop.

■ *Najeeb Khan*

Being an architect, you would use software like AutoCAD, so I would recommend a workstation-class laptop. The workstations are powerful enough to tackle the most applications required by this profession, such as those from Autodesk or SolidWorks. The minimum configuration you should look for is an Intel Core i5 or higher CPU, 16 GB RAM and dedicated graphics with 4 GB memory.

■ *Ashok Pandey, CyberMedia Labs*

I have a budget of 30k, which is a good laptop for online classes?

■ *Robin Vyas*

For online classes, you actually don't require high configuration. You can check out Chromebooks, as usually, all the major brands are selling Chromebooks at the starting price of 25k. The Chromebook is perfect for various applications which you use for e-learning with efficient battery life.



■ *Ashok Pandey, CyberMedia Labs*

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Enterprise Choice Awards is the industry annual report that voices the change in the tech standpoint and what business entity perceive and demands from the brands.

2000+ enterprise CIO's surveyed, across major verticals as Manufacturing, BFSI, IT/ITeS, Education, Healthcare, Retail, Media, FMCG etc.

Key factors:

• Spontaneous Awareness • Current Usage • Future Consideration and many more.

August 2021	
Commercial PC	DELL
Commercial Laptop	hp
Server	DELL
NAS	NetApp
Software-defined Storage	DELL EMC
Cloud-Based Storage	DELL EMC
Virtualization	vmware
Networking Products	CISCO
Security Solutions	McAfee
Data Centre Service Provider	TATA COMMUNICATIONS

ENTERPRISE CHOICE AWARD 2021



September 2021	
Cloud Computing Service provider	aws
Enterprise Resource Planning	SAP
Finance & Accounting Software	Tally POWER OF SIMPLICITY
Business intelligence / Business Analytics	Microsoft
Artificial Intelligence	IBM
Robotic Process Automation	AUTOMATION ANYWHERE
Email Solution	Microsoft Outlook
Unified Communication	CISCO
Video Conferencing	zoom
Bandwidth Management & Optimization	JUNIPER NETWORKS

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To know more about the survey:
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PCQ Enterprise Choice Awards 2021: Solutions, services that won enterprises' hearts

The Vol II of PCQ Enterprise Choice Awards 2021 provides you with a true picture of what's going on: what professionals actually prefer and why

Satya Sundar Mohanty, CyberMedia Research
Ashok Pandey, PCQuest
pcquest@cybermedia.co.in

In In the first volume of PCQ Enterprise Choice Awards 2021, we covered 10 enterprise solutions, where we determined factors why they chose their existing solutions and what they will prefer in the future. The survey was conducted to identify the top brands across 20 different categories. Based on the survey, the winners have been declared. We have covered 2,010 enterprises spread over all major verticals such as Manufacturing, BFSI, IT / ITeS, Education, Healthcare, Retail, Media, FMCG, etc.

We are presenting a comprehensive analysis of awareness and usage of various solutions with their reasons, familiarity index, and the future preferences. Check out the winners in each of the 10 categories.

Vol 1 Awards Categories
1. Commercial laptop
2. Commercial PC
3. Server
4. Network-attached Storage
5. Software-defined Storage
6. Cloud-Based storage
7. Virtualization
8. Networking Products
9. Security Solutions
10. Data Centre Service Provider

Vol 2 Awards Categories
1. Cloud Service Provider
2. Enterprise Resource Planning
3. Finance & Accounting Software
4. Business Intelligence / Business Analytics
5. Artificial Intelligence
6. Robotic Process Automation
7. Email Solution
8. Unified Communications
9. Video Conferencing
10. Bandwidth Management & Optimization

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- Publishes Digital Index [December edition] & Employability Index [September edition]
- Connects with 1000+ colleges, 1000+ HR & Tech Leaders, 10,000+ Students, 1000+ CXO's

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AWS continues to dominate the Cloud Service space

Satya Sundar Mohanty, CyberMedia Research
Ashok Pandey, PCQuest, Soma Tah, PCQuest
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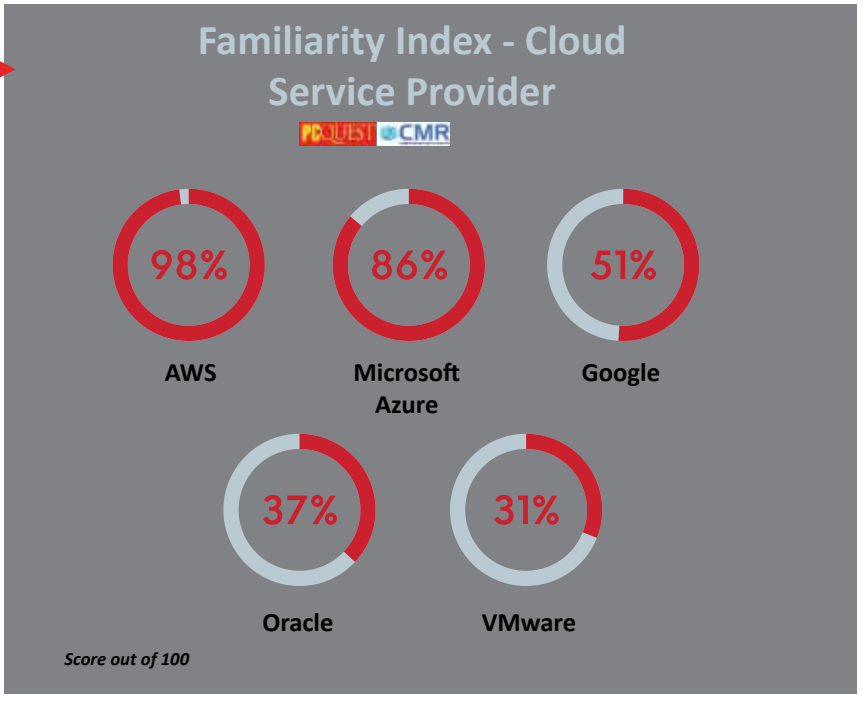
AWS is likely to rule the market in the future as well, but will find itself neck and neck with Microsoft Azure in the near future

There has been a massive surge in the adoption of cloud services across all the industries after the coronavirus outbreak. The Indian Public Cloud services market revenue reached $3.6 billion for 2020 and is set to reach $9.5 billion by 2025, with a CAGR of 21.5 per cent, according to an IDC report.

Amazon Web Services (AWS) dominated all the segments of the category and grabbed the winning spot. Microsoft Azure becomes the first runner-up for its brand name and product quality. While Google Cloud grabbed the second runner-up place.

In the Familiarity Index, AWS scored the highest and was loved by most of the professionals. Microsoft Azure was the first runner-up followed by its very close competitor Google, Oracle, VMware, and Alibaba.

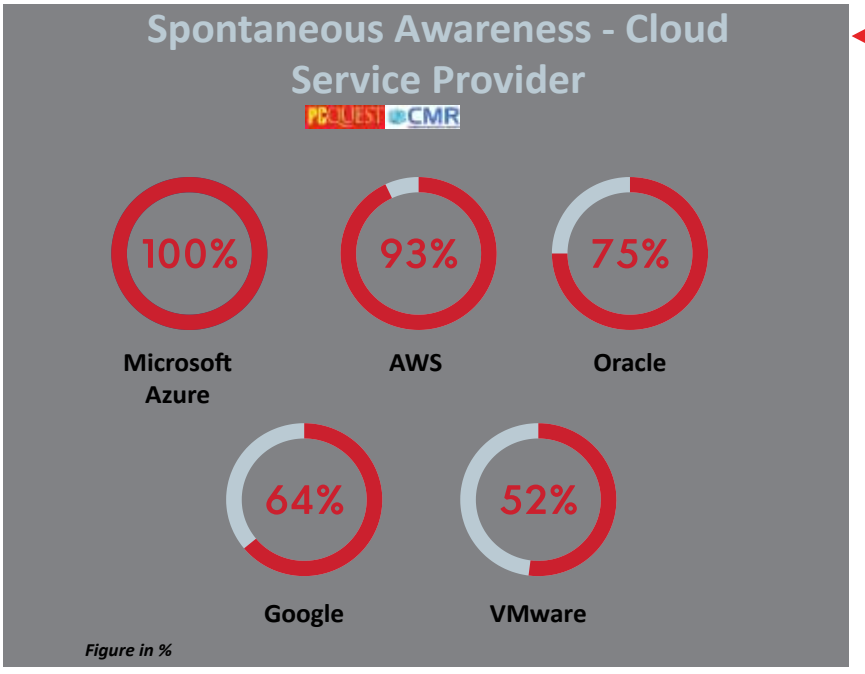






Enterprises prefer Google and Oracle cloud services for their pricing

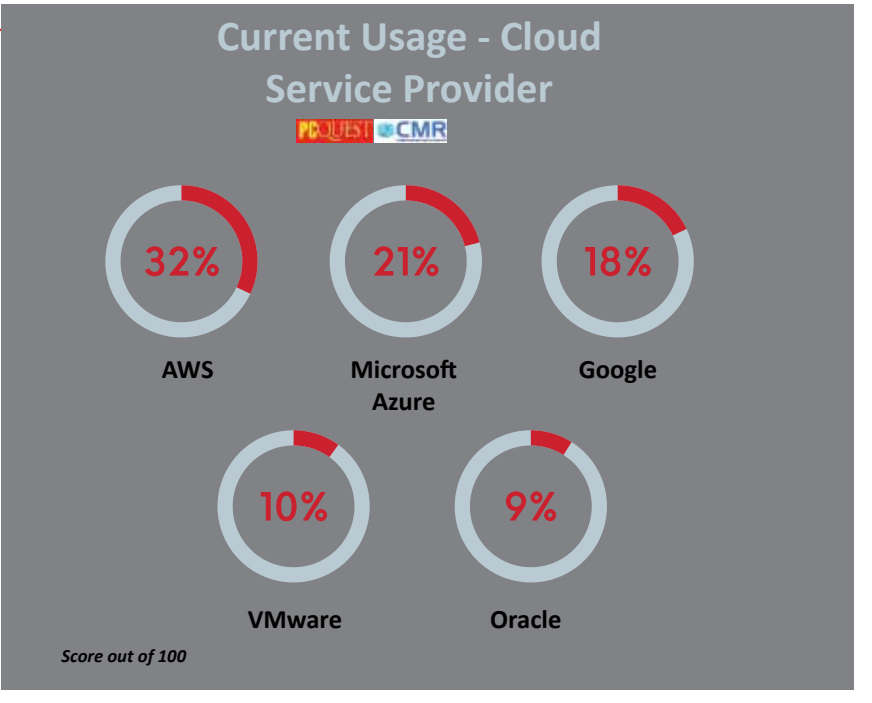
All of our respondents were spontaneously able to recall Microsoft Azure- 100 per cent, meaning almost every professional is aware of Microsoft Azure. AWS (93 per cent) lost by just a few points here. Oracle (75 per cent) is also known to most of the professionals, followed by Google (64 per cent), VMware (52 per cent) and Alibaba (46 per cent).



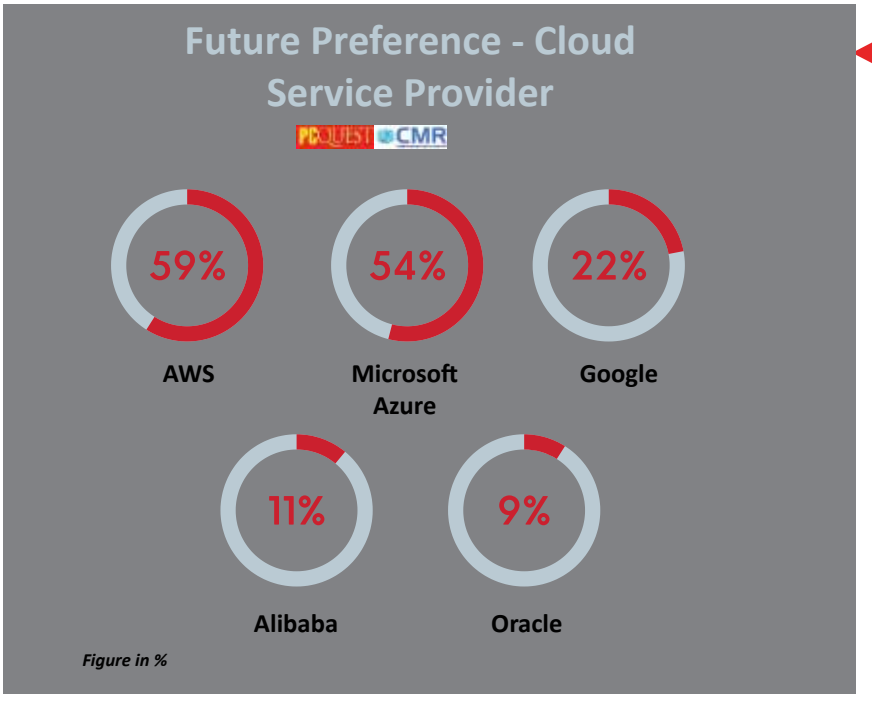


When we asked about the brand they are currently using, AWS won the race (32 per cent) once again. But competitors were not far behind. Microsoft Azure was on the second spot (21 per cent) followed by Google, VMware, Oracle and Alibaba. This data clearly shows that leaving the first three players, other players are moving neck and neck. But who will lead the market in the near future? Let's see that in our next survey result.





AWS will be ruling the market in the future as well, but will face tough competition from Microsoft Azure. Google seems to be losing and Alibaba gaining some of the market shares. Oracle and VMware need to worry about their shares too.





Now, where do these brands need more attention to grab higher market share? AWS and Microsoft Azure attracted professionals for their brand name and their service, while Google and Oracle were attractive for their pricing. Users were happy with the quality of the service/solutions with VMware but Alibaba got attention for its after sales support / service. Most of the players lost out on after sales support / service, and pricing seems to be an equally important factor for future buying consideration.

Reasons for Using Current Cloud Service Provider

	AWS	Microsoft Azure	Oracle	Google	VMware
Brand Name	■	■			
Quality of Service/Solution	■	■			■
Pricing			■	■	
After Sales Support / Service					

■ High

Illustration by Nadeem Anees

Both SAP & Oracle eye bigger piece of the ERP pie

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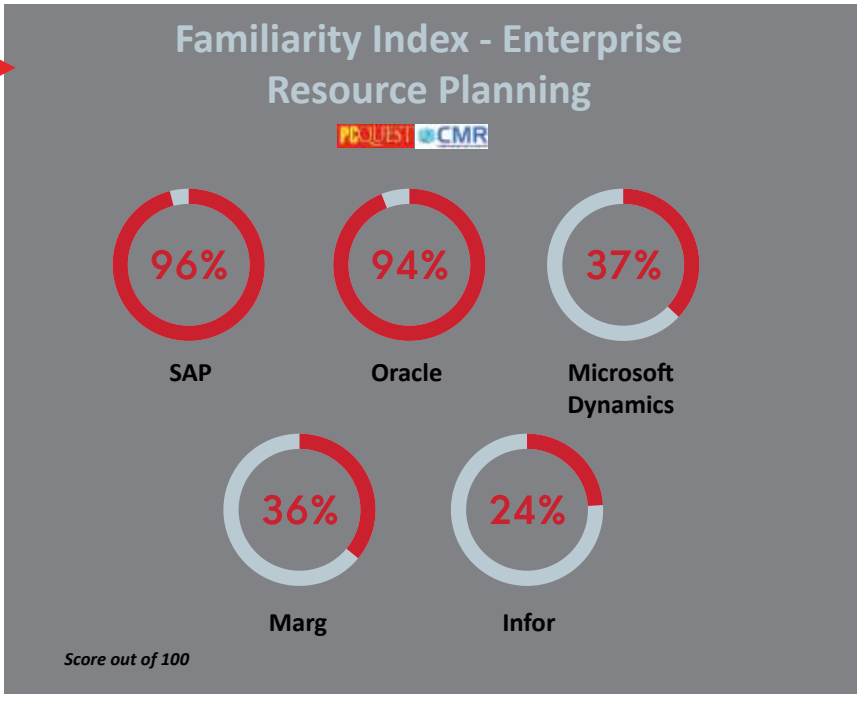
Enterprises prefer SAP and Oracle the most while selecting their next ERP solution, but homegrown brand Marg is gaining ground too

The Enterprise Resource Planning (ERP) solution that includes core software components, often called modules, such as finance and accounting, human resource (HR), customer relationship management (CRM), supply chain management (SCM), production & materials management, and more, enables efficient resource management and enhances the operational efficiency. According to Research and Markets, the global ERP market is projected to reach $86,303.00 million by 2027, growing at a CAGR of 9.8 per cent from 2020 to 2027.

When we reached out to the IT-decision makers to know their choice for ERP, SAP was the winner followed by Oracle, the first runner-up and Microsoft Dynamics, the second runner-up.

In our Familiarity Index, SAP scored the highest (96 per cent), being neck and neck with Oracle (94 per cent). Microsoft Dynamics secured the third place with a score of 37 per cent followed by Marg, and Infor. There was however a large gap between the first and the second runner up.

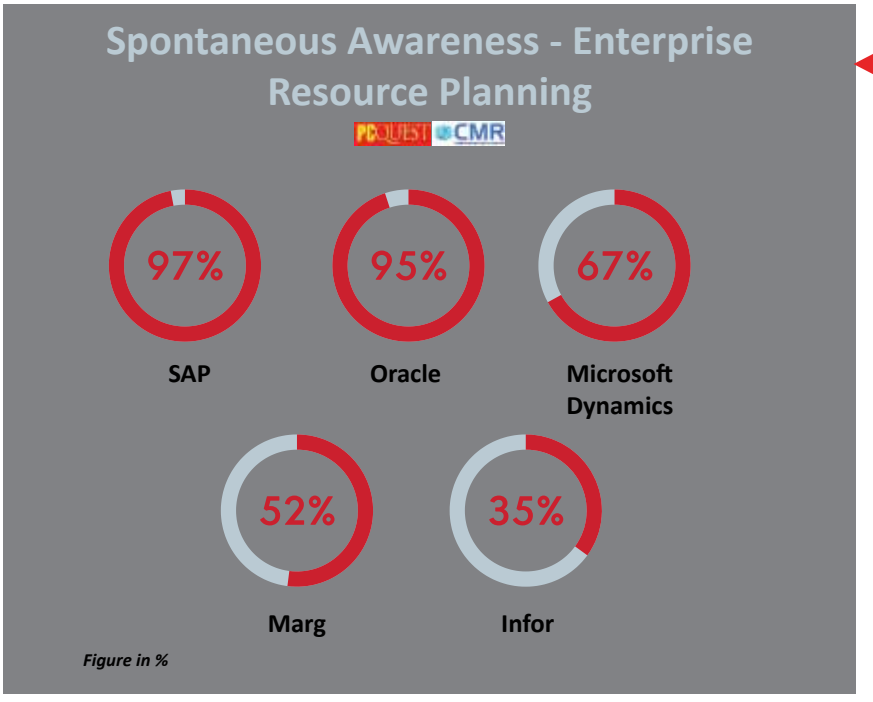






SAP and Oracle moved neck and neck in all the categories

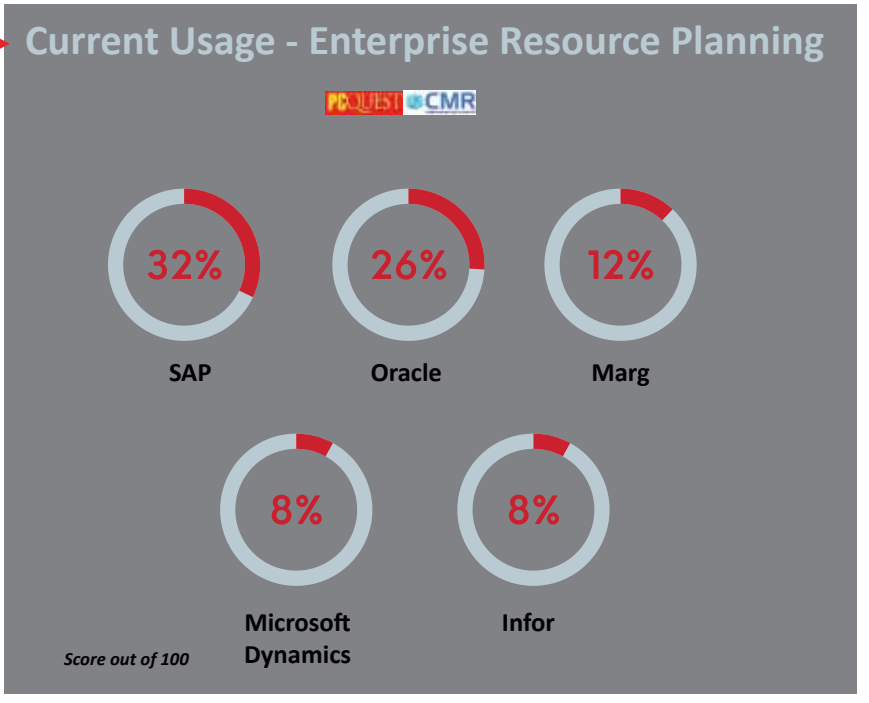
SAP and Oracle were the brands with high recall value, with 97 and 95 per cent scores respectively followed by Microsoft Dynamics (67 per cent), Marg (52 per cent), and infor (35 per cent).



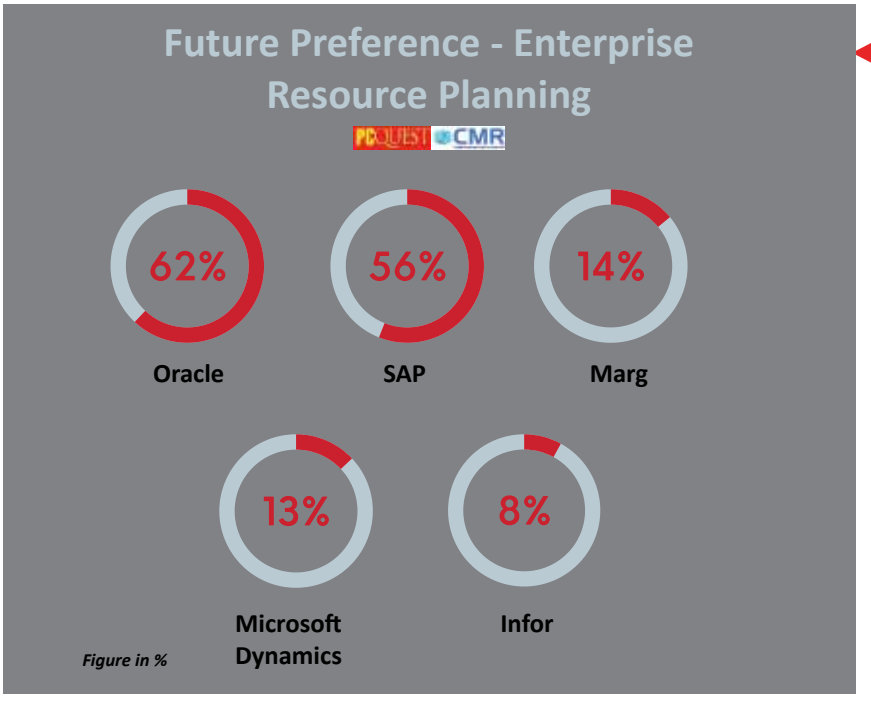


When we ask which brand's ERP solution they are currently using, we got similar results for the top two positions, but Microsoft Dynamics lost out and ended in the fifth place. SAP and Oracle maintained their rankings, Marg marched ahead to become the second runner-up leaving Microsoft Dynamics and Infor in the fourth and fifth positions respectively. This means, although people are aware of Microsoft Dynamics, they prefer using Marg.





But in the future, Oracle might beat SAP, but with a narrow margin. Marg maintains its third position, while Microsoft and Infor maintain their positions in the fourth and fifth place respectively.





Let's find out the reason behind using their existing brands. SAP and Oracle both scored better for the brand name and for the quality of the solution. Microsoft Dynamics and Marg got attention for their quality of solution, while Infor for after sales support/service.

Reasons for Using Current Enterprise Resource Planning

	SAP	Oracle	Microsoft Dynamics	Marg	Infor
Brand Name	■	■			
Quality of Service/Solution	■	■	■	■	
Pricing					
After Sales Support / Service					■

■ High

Illustration by Nadeem Anees

Tally continues to lead the Finance & Accounting market

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Ashok Pandey, PCQuest, Soma Tah, PCQuest
pcquest@cybermedia.co.in



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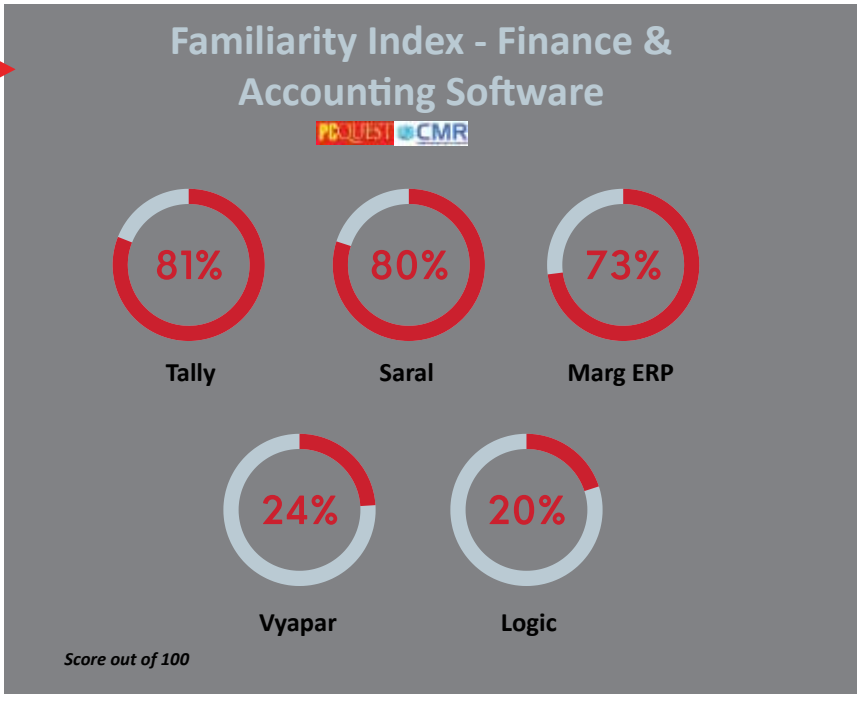
Survey findings reveal a tremendous jump for Saral and Marg ERP in the future, so much so that they might even surpass Tally

Numerous factors are propelling the Finance & Accounting (F&A) software market growth, including the need for businesses to be GST compliant. The F&A software solutions are used to streamline the accounting process, save time, and ensure an error-free transaction. Over the past two decades, the F&A software solution market has witnessed numerous changes and a series of transformations. According to a report by Mordor Intelligence, the Accounting Software Market is expected to reach USD 19.59 billion by 2026, at a CAGR of 8.5 per cent over the forecast period 2021 - 2026.

In India, Tally is leading the F&A Software market as well as in our survey results. Saral became the first runner-up and Marg ERP got the second runner-up spot.

In the Familiarity Index, Tally got the highest score (81 per cent), which was not a surprise anyway. But Saral gave it a very close competition which was quite unexpected and scored 80 per cent. Marg ERP was also only a few points below scoring 73 per cent, followed by Vyapar (24 per cent) and Logic (20 per cent).

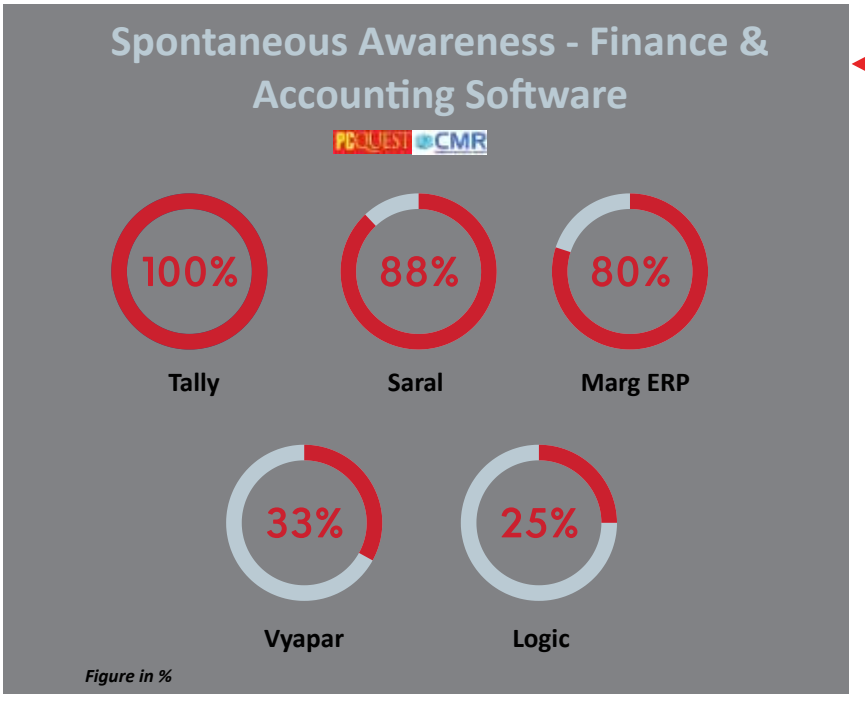






Marg ERP is the most used F&A solution brand after Tally

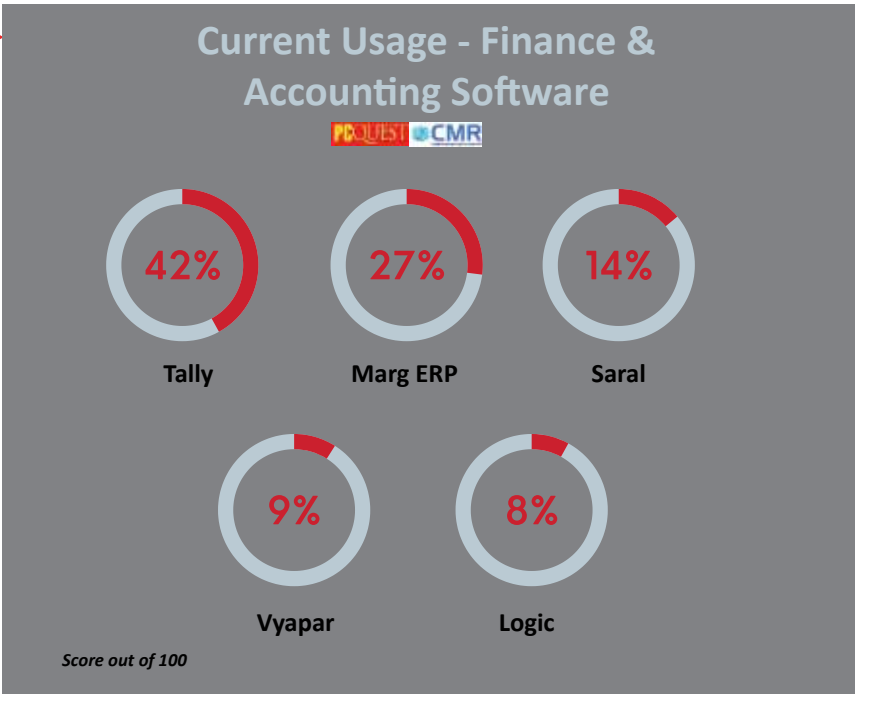
Every F&A Software user knows about Tally and that reflects in our Spontaneous Awareness, where 100 per cent of respondents mentioned Tally. Saral was the second most-known brand with a score of 88 per cent. Marg ERP scored 80 per cent followed by Vyapar (33 per cent) and Logic (25 per cent).



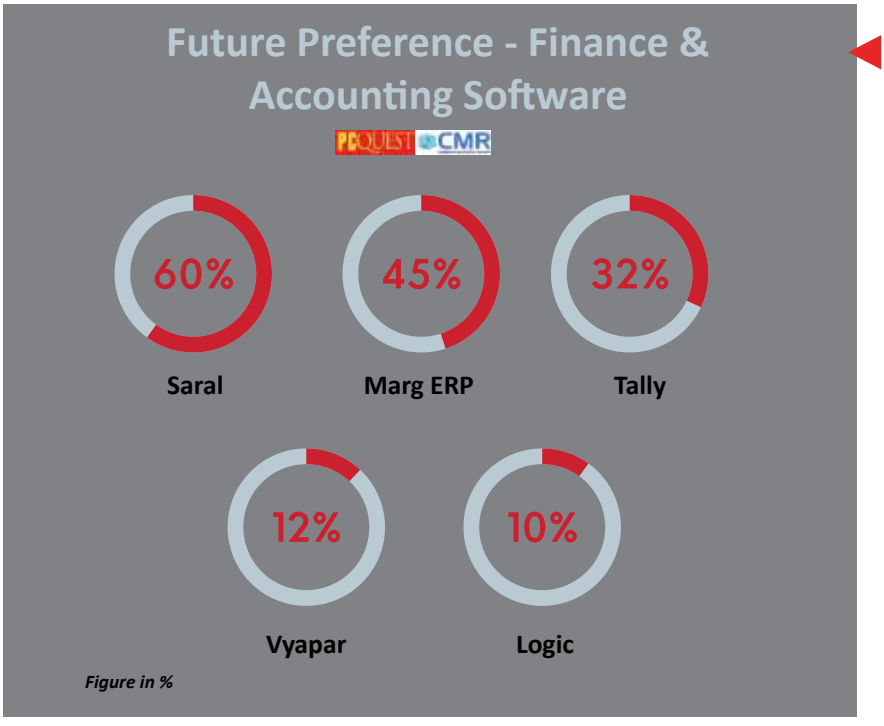


Tally is the most used brand currently with a score of 42 per cent. Marg ERP became the first runner-up (27 per cent), and Saral second runner-up with a score of 14 per cent, followed by Vyapar (9 per cent) and Logic (8 per cent).





What the future has in store? Survey findings show a tremendous jump in the score for Saral (60 per cent). Marg ERP (45 per cent) is also likely to gain some new customers and leave Tally (32 per cent) behind. It seems that Tally needs to work a lot to regain the trust of the users.





Who chose what and why? Tally was considered for its brand name and initial price. Saral, Marg ERP, and Vyapar for their quality of the product. Logic for its after sales support/service. So, we can say, Tally has to work on its product's quality if they want to maintain its dominance in the market.

Reasons for Using Current Finance & Accounting Software

	Tally	Saral	Marg ERP	Vyapar	Logic
Brand Name	■				
Quality of Service/Solution		■	■	■	
Pricing	■				
After Sales Support / Service					■

■ High

Illustration by Nadeem Anees

A sweeping victory for Microsoft

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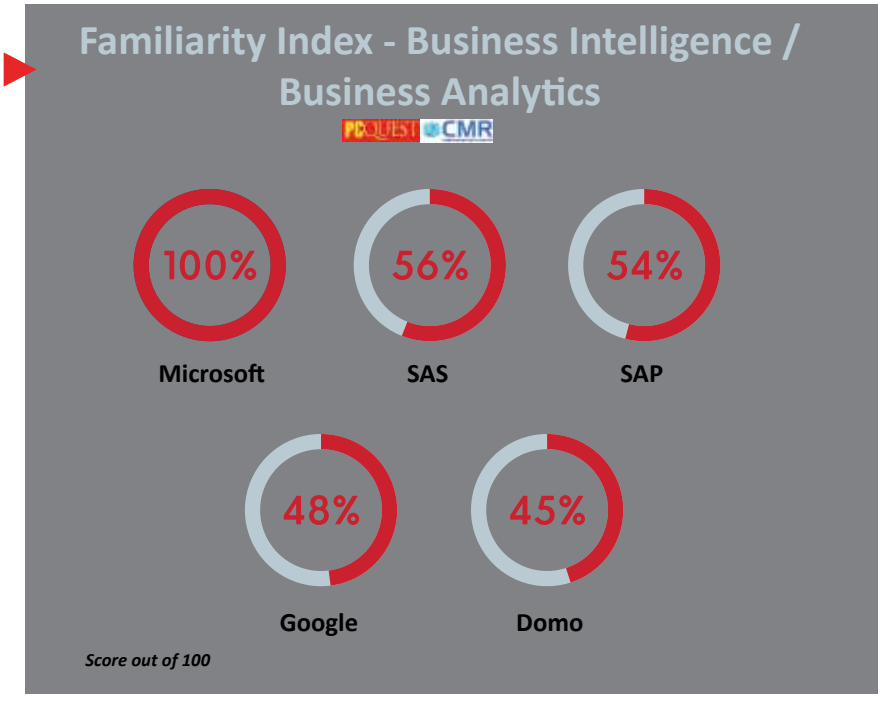
While Microsoft continues to lead the market, competition becomes more intense among SAP, SAS, Salesfoce, Qlik, Google, and Domo

A huge amount and variety of data is being generated in enterprises across the world every day. In order to identify opportunities and problems and make smarter decisions, you need methods and tools to turn your data into actionable insights. Business intelligence (BI) / Business analytics (BA) is the solution for that. Businesses are using BI/BA to make informed decisions, but which brand's solution, let's find out.

Indian businesses are adopting BI/BA and the most popular one is Microsoft Power BI. Microsoft was the clear winner in this category with the maximum score and trust. SAS grabbed the first runner-up spot followed by SAP.

In our Familiarity Index, Microsoft scored 100 per cent leaving competitors far behind. There was a huge gap between Microsoft and the first runner-up, SAS (56 per cent). However, SAP was only two points below SAS, followed by Google – 48 per cent and Domo – 45 per cent.

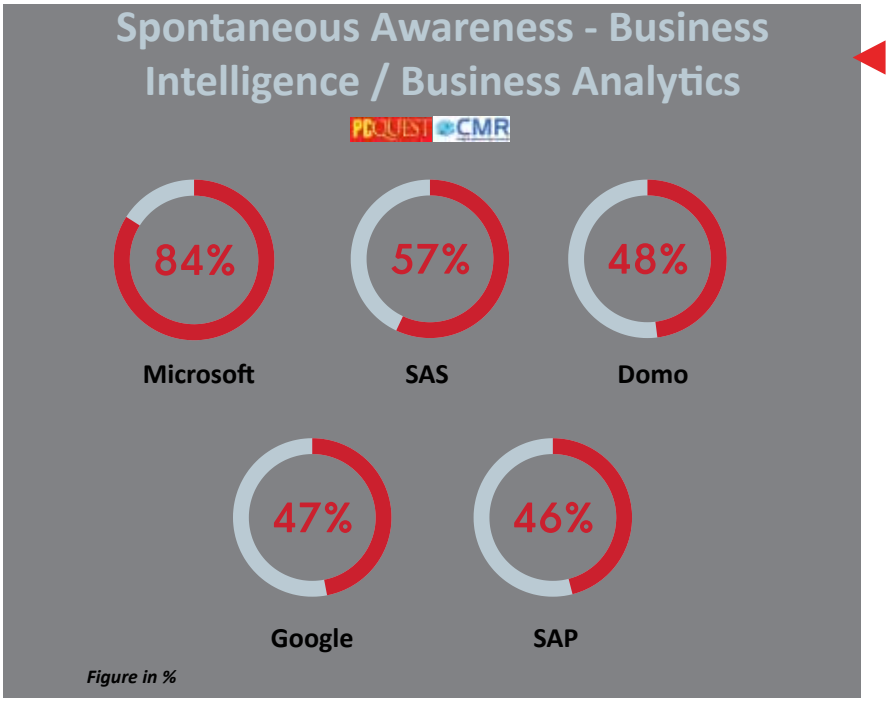






Nearly half of the users would consider Microsoft for their next BI/ BA Solution

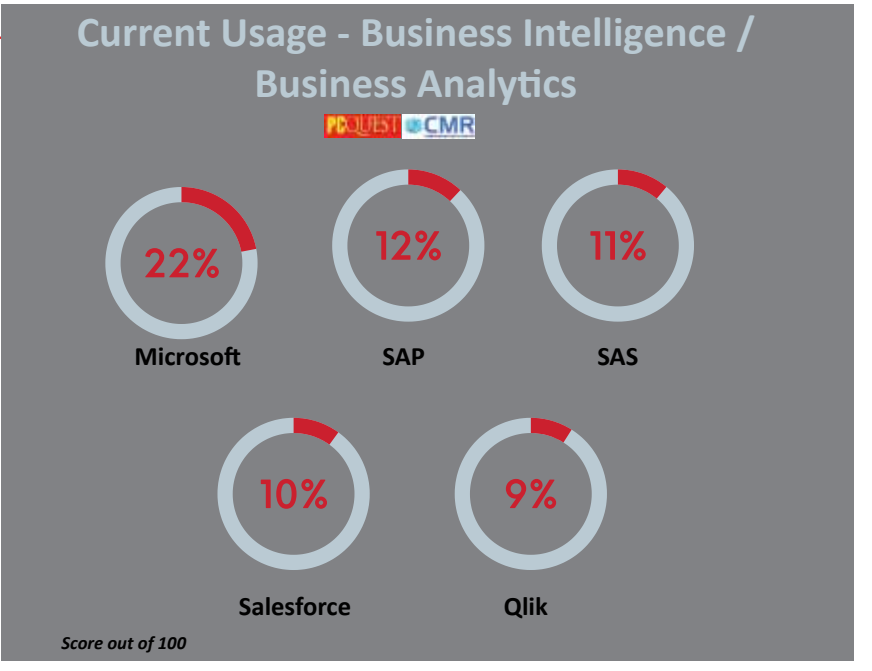
Almost every participant was aware of Microsoft Power BI. Microsoft scored 84 per cent in the Spontaneous Awareness survey and the gap was still huge between Microsoft and SAS – 57 per cent. Domo (48 per cent) became the second runner-up, and interestingly, the gap between Domo, Google, and SAP was only one point.



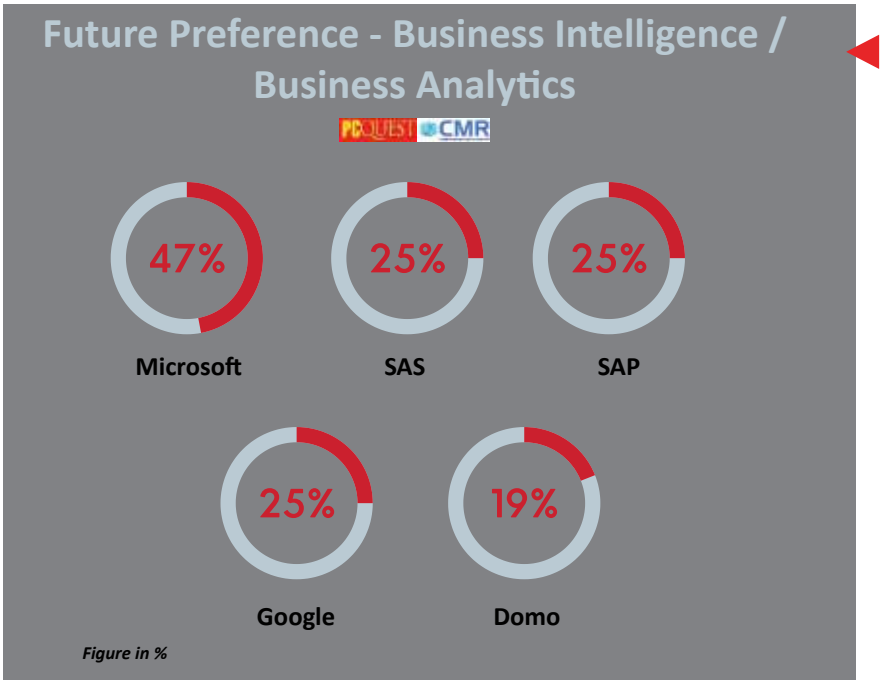


So, did that Spontaneous Awareness get translated into Customer Usage as well? Yes, Microsoft wins the race again with a score of 22 per cent. SAP (12 per cent) was the next brand considered by the most respondents followed by SAS (11 per cent), Salesforce (10 per cent) and Qlik (9 per cent). Here we got two new entries- Salesforce and Qlik, which means that although participants are aware of Google and Domo, they are not using those solutions much.





What will happen in the future? Again, Microsoft impressed most of the participants (47 per cent). SAP shared the first runner-up spot with SAS and Google, scoring 25 per cent each and they were followed by Domo (19 per cent). This means Microsoft will be the top brand for BI/BA solutions in the future as well, while it would be a neck and neck competition among SAP, SAS, Google, and Domo.





When we asked users the reason behind choosing their existing brands, we got interesting results. Microsoft, SAS, and SAP, all three brands were considered for their brand name and quality of the solution. Google impressed with the initial price and Domo for its after sales support / service.

Reasons for Using Current Business Intelligence / Business Analytics

	Microsoft	SAS	SAP	Google	Domo
Brand Name	High	High	High		
Quality of Service/Solution	High	High	High		
Pricing				High	
After Sales Support / Service					High

Illustration by Nadeem Anees

IBM is the most trusted enterprise AI solution

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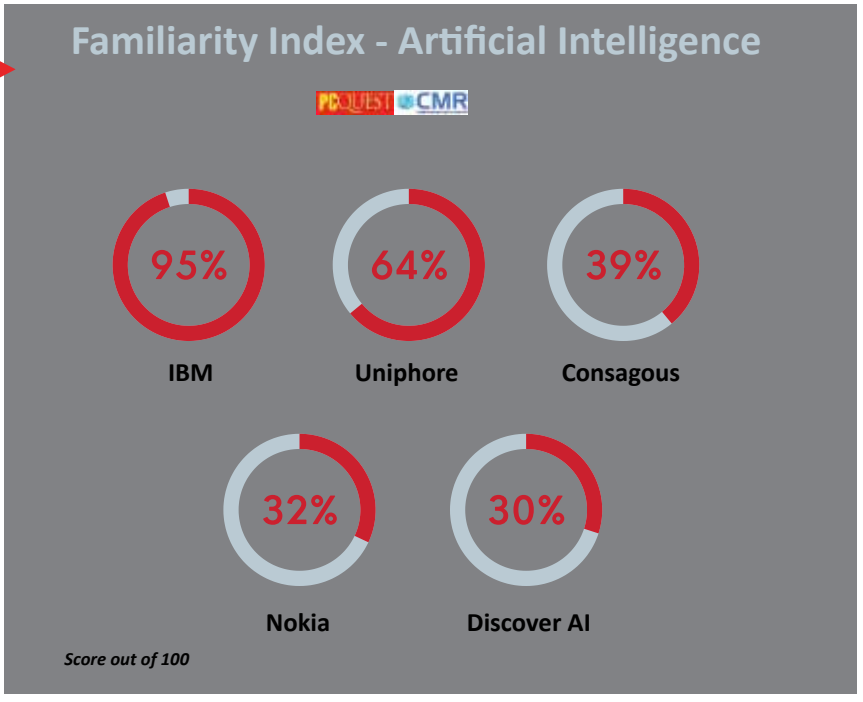
Besides IBM, Microsoft, and Google, an increasing number of enterprises showed their preferences for Uniphore and Consagous

Artificial Intelligence (AI) has brought a dramatic shift in the world of technology. From your very own smartphone to diagnosing illness, AI is now being used in almost every field. In fact, it is estimated that AI has the potential to add 15 per cent of India's current gross value in 2035.

India seems to be ready to seize the opportunity, so let's look at the AI solutions that the Indian enterprises are using currently? In our survey of AI solution adoption, IBM becomes the winner. Uniphore was the first runner-up and Consagous was the second runner-up.

IBM (95 per cent) scored the maximum in our Familiarity Index and became a winner in most of the segments. Uniphore scored the second highest (64 per cent) followed by Consagous (39 per cent), Nokia (32 per cent) and Discover AI (30 per cent). Interestingly Google and Microsoft weren't able to make their spot in the top five.

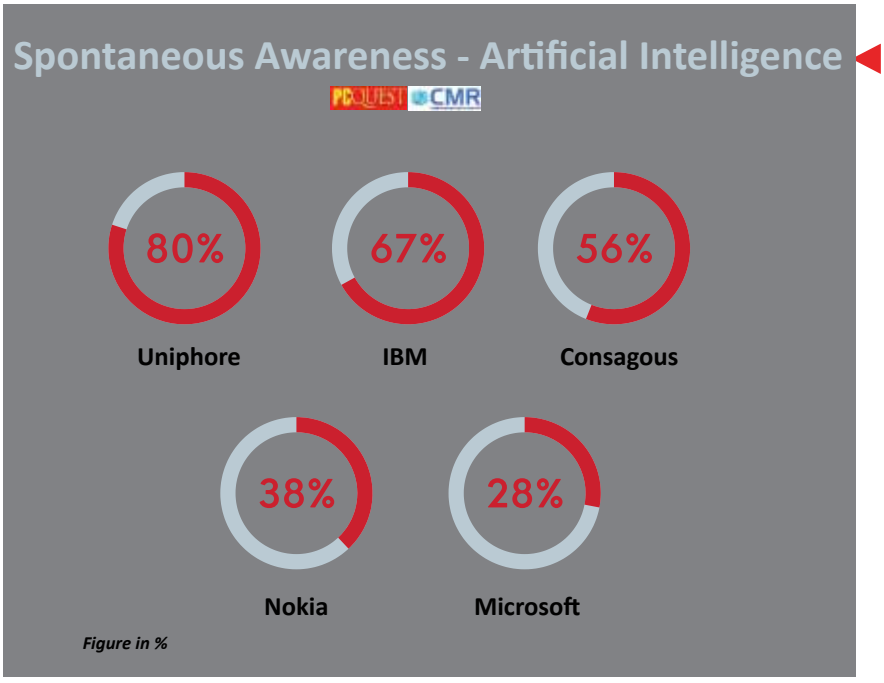






Nearly half of the users would consider IBM for their next AI solution purchase

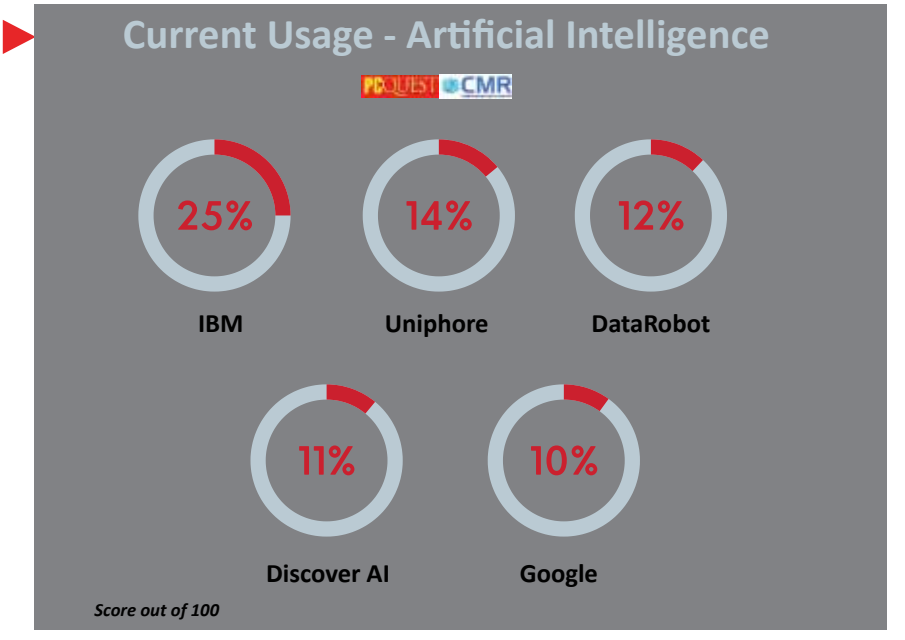
When we surveyed users for spontaneous brand recall for AI, IBM (67 per cent) wasn't the winner. Uniphore (80 per cent) seized the winner's spot leaving IBM behind and Consagous (56 per cent) became the second runner-up. The fourth and fifth spots were grabbed by Nokia (38 per cent) and Microsoft (28 per cent) respectively.



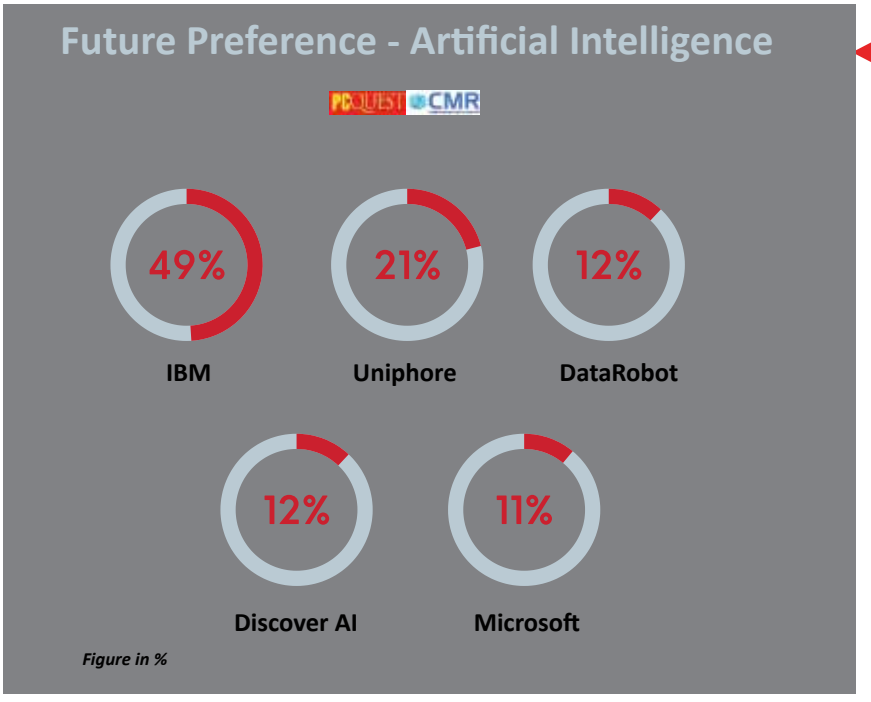


Currently, most of the enterprises are using IBM (25 per cent) AI solution, Uniphore has become the first runner-up again with a score of 14 per cent. DataRobot (12 per cent) was the new entry in the segment, followed by Discover AI (11 per cent) and Google (10 per cent). Interestingly, Microsoft was recalled by many and hence appeared in the top five list in our Spontaneous Awareness survey category. But Google replaces Microsoft in the top five list in the Current Usage category. This means people know about Microsoft's AI solutions but are using Google.





In future as well IBM is going to lead the market, followed by Uniphore, DataRobot, Discover AI, and Microsoft. Here, most of the users will continue with their existing AI solution brand, however Microsoft is likely to inch forward Google again in the future considerations.





IBM has attracted users with its brand name and quality of solution, and that was the reason it emerged as the winner. Uniphore and Consagous got attention for their quality and after sales support/service. Nokia and Discover AI impressed users with the quality of their solutions.

Reasons for Using Current Artificial Intelligence

	IBM	Uniphore	Consagous	Nokia	Discover AI
Brand Name					
Quality of Service/Solution					
Pricing					
After Sales Support / Service					

High

Illustration by Nadeem Anees

Automation Anywhere wins the RPA race

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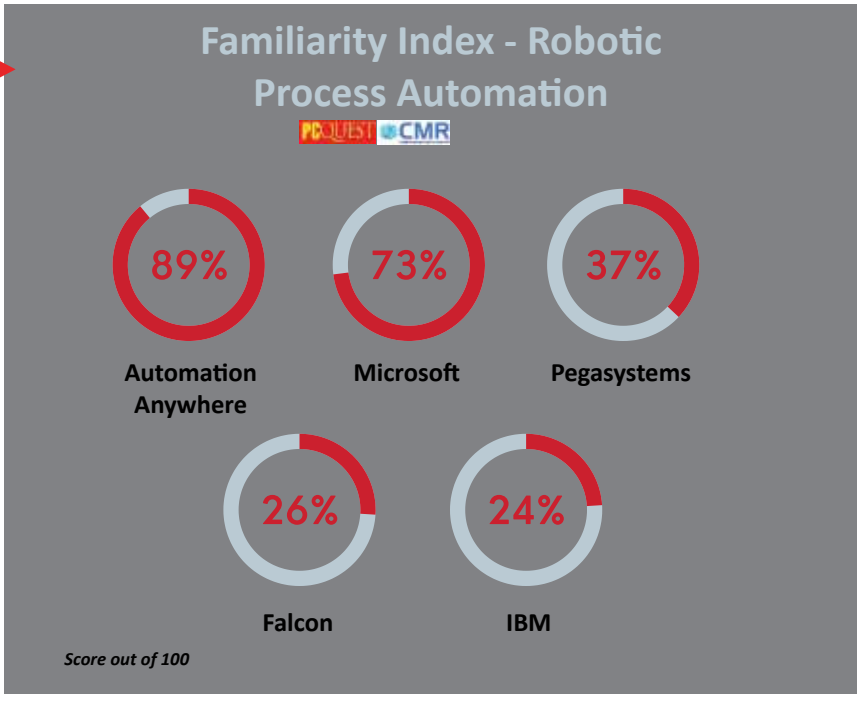
Microsoft Power Automate was remembered by most of the respondents, Pegasystems and Automation Anywhere came next

RPA (Robotic Process Automation) has seen a huge growth globally in the last few years. Fortune Business Insights, in its latest report found that RPA is expected to grow USD 6.10 billion by 2027 while exhibiting an astounding CAGR of 24.9 per cent between 2020-2027.

India has also witnessed a huge adoption of RPA, we tried to find out which RPA vendor is leading the Indian market. Well, the verdict is clear- Automation Anywhere leads the Indian market. In our survey, Microsoft Power Automate became the first runner-up followed by Pegasystems.

Automation Anywhere was loved by most of the respondents and gained the maximum amount of trust from the users with a score 89 per cent. Microsoft was the next in the race gaining the second-highest score of 73 per cent. Pegasystems was the next with a huge gap (37 per cent), followed by Falcon (26 per cent) and IBM (24 per cent).

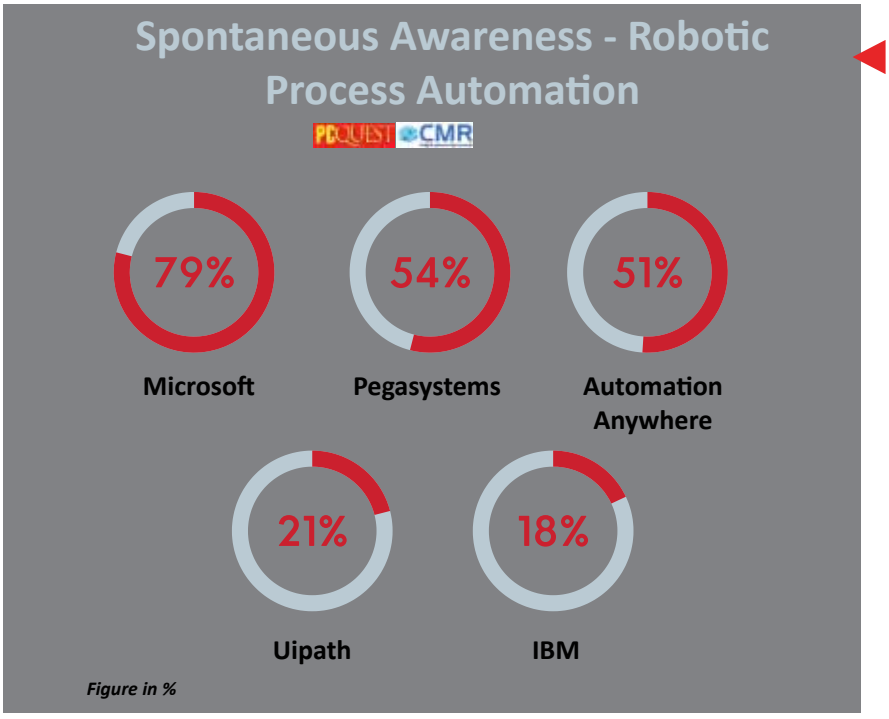






Nearly half of the users would consider Automation Anywhere while buying their next RPA Solution

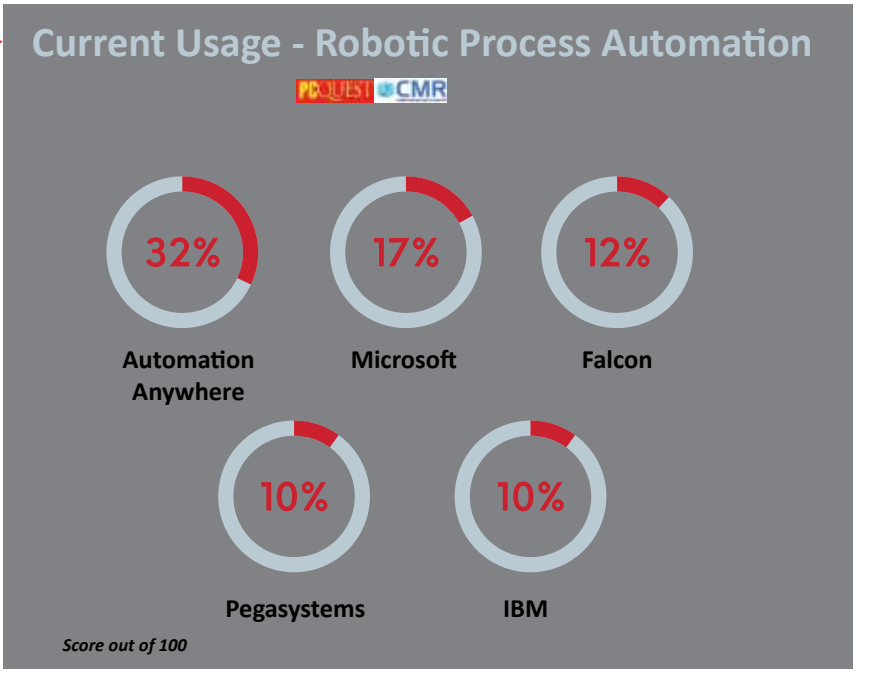
Interestingly, in our Spontaneous Awareness survey, Automation Anywhere lost to Microsoft and Pegasystems who grabbed the first and the second spot respectively. Microsoft Power Automate was remembered by most of the respondents, Pegasystems and Automation Anywhere came next. UiPath made its impact in this segment, however, has not been able to sustain its position in any other segment in the category.



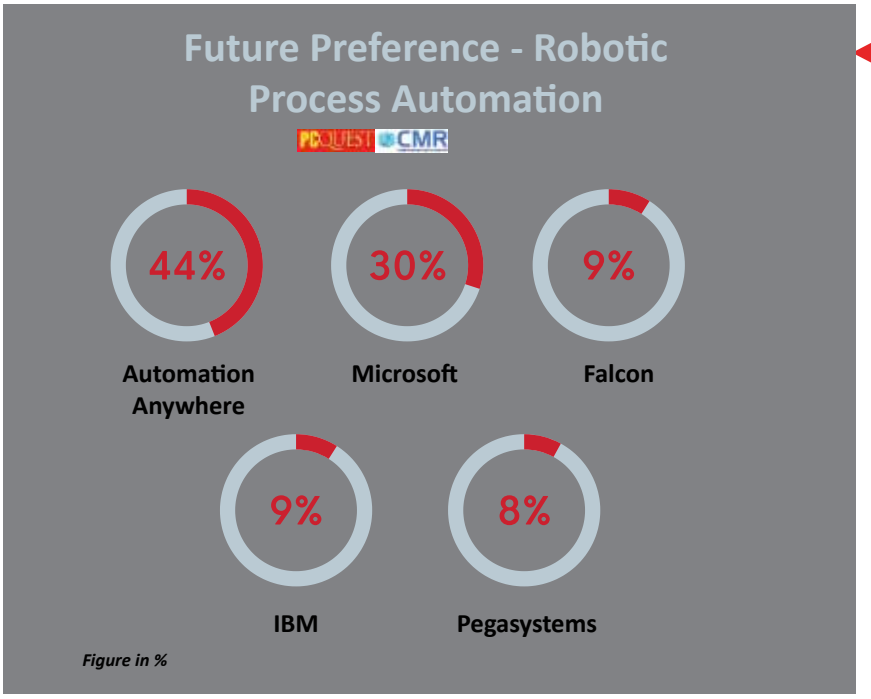


Who is using which brand's RPA solution? Once again Automation Anywhere becomes the winner leaving its competitors by a long shot. Microsoft was able to maintain the first runner-up place followed by Falcon, Pegasystems, and IBM.





Who is going to capture the market in the future? Automation Anywhere leads again with a better margin. This data shows that existing users will continue to be with it, plus it will gain some new customers. The same goes with Microsoft. But Falcon, IBM, and Pegasystems may lose some customers.





Why Automation Anywhere is leading the segment and Microsoft has a stronghold? Both the brands are popular among the respondents for their brand name and quality of the solution. Rests were not able to make an impact, though Pegasystems grabbed attention for its quality. Falcon has been considered for its pricing and IBM for its after sales support / service.

Reasons for Using Current Robotic Process Automation

	Automation Anywhere	Microsoft	Pegasystems	Falcon	IBM
Brand Name	High	High			
Quality of Service/Solution	High	High	High		
Pricing				High	
After Sales Support / Service					High

Illustration by Nadeem Anees

Outlook wins the race, Gmail follows hard on the heels

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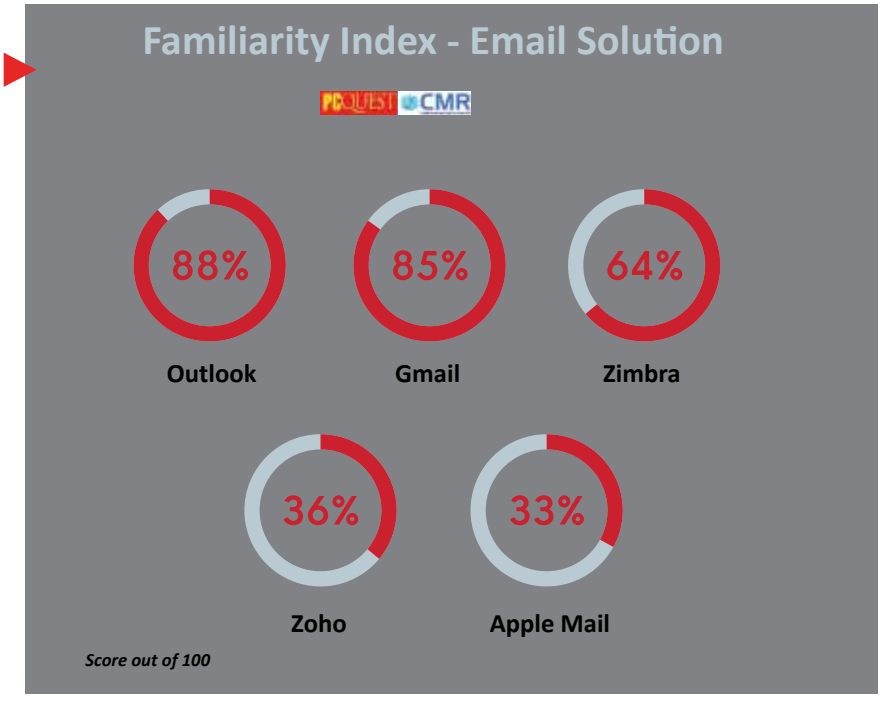
Although Outlook and Gmail were the most popular email solutions, Zimbra was the next preferred email solution among enterprises

Email solutions come with numerous benefits, however, most of them were unknown to many for the last couple of years. But now, due to rising awareness about the advantages of email solutions among enterprises is opening new opportunities. According to Fortune Business Insights, the global email Marketing Software Market is projected to reach USD 2,275.5 million by 2027, exhibiting a CAGR of 10.5 per cent during the forecast period.

In our survey results, Microsoft Outlook is the winner, but we found a whole lot of traction for Gmail too. Google grabbed the first runner-up spot and Zimbra became the second runner-up.

In our Familiarity Index, Outlook and Gmail were close competitors, with a score of 88 and 85 per cent respectively. Zimbra got 64 per cent scores followed by Zoho (36 per cent) and Apple Mail (33 per cent).

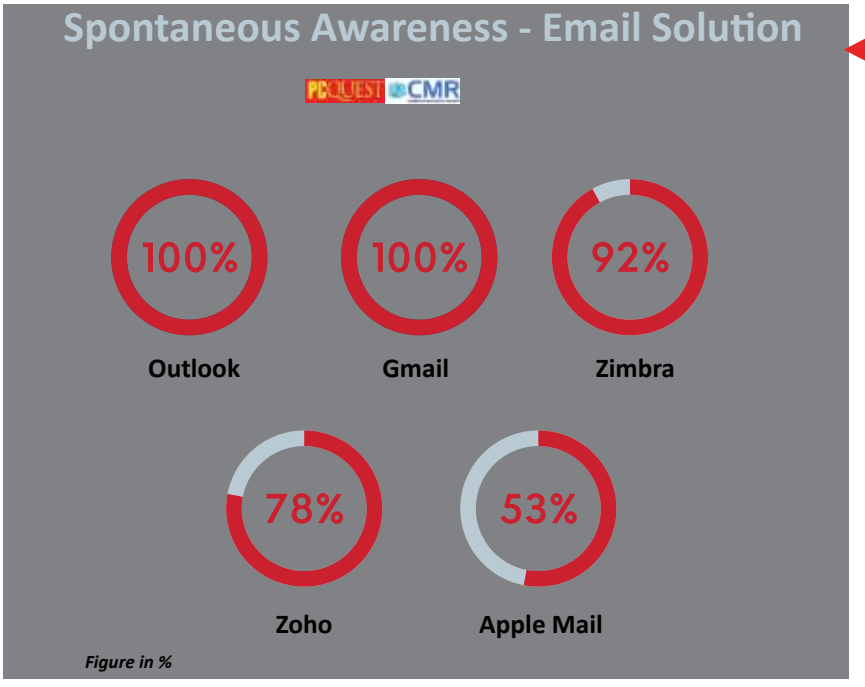






Survey results indicate that Gmail's usage might surpass Microsoft outlook in the future

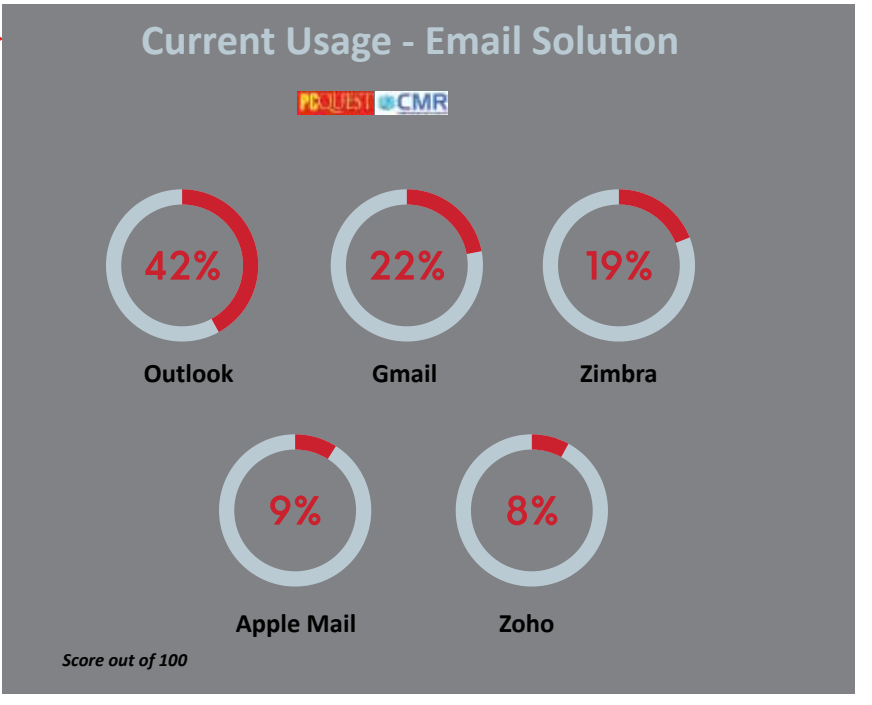
Almost every respondent was able to spontaneously recall Microsoft's Outlook and Google's Gmail Both shared the same score of 100 per cent awareness. The next names that came to their mind was Zimbra (92 per cent awareness) followed by Zoho (78 per cent) and Apple Mail (53 per cent).



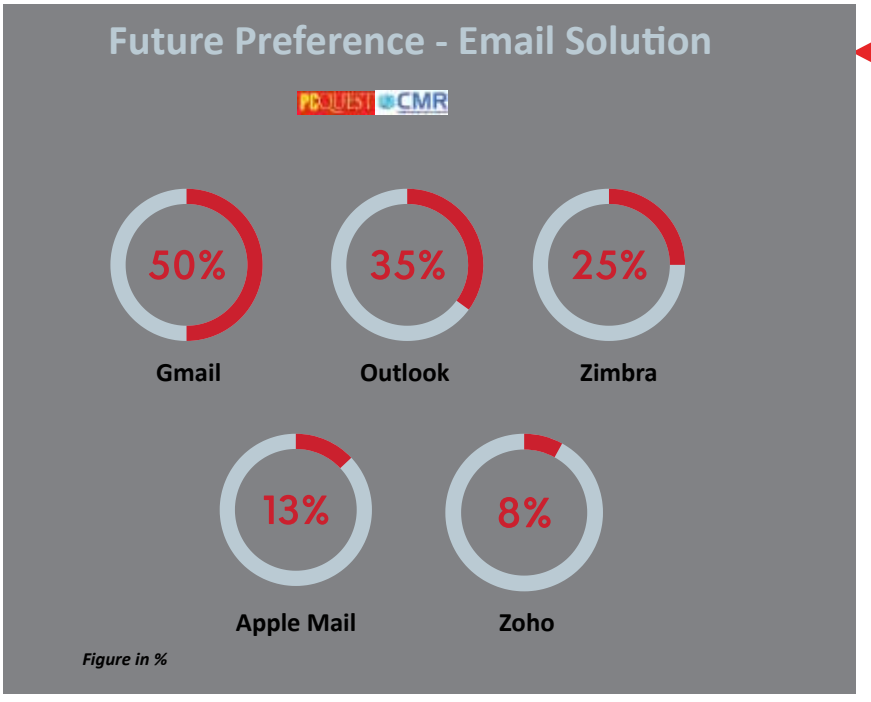


When we asked which brand's email solution they are using currently, Microsoft's Outlook was the winner in the segment again with a score of 42 per cent. The next spot was captured by none other than Google's Gmail with a score of 22 per cent, followed by Zimbra with a score of 19 per cent, Apple mail with a score of 9 per cent and Zoho with a score of 8 per cent.





Which brand is going to dominate the email solution space in the future? It's likely to be Gmail. Most of the respondents preferred the Gmail solution and it seems that even the existing Microsoft Outlook users can switch to Gmail in the future. Zimbra was able to maintain its third spot followed by Apple Mail and Zoho in the fourth and fifth spots respectively.





When we tried to understand the reasons for choosing the current email solutions – most people preferred Outlook for its brand name and quality. While Gmail for its brand name and pricing. Zimbra for its pricing mainly, Apple for the brand name and Zoho for after sales support/service. This data shows that Microsoft needs to work on their pricing and Gmail has to work on the customer experience part.

Reasons for Using Current Email Solution

	Outlook	Gmail	Zimbra	Apple Mail	Zoho
Brand Name					
Quality of Service/Solution					
Pricing					
After Sales Support / Service					

High

Illustration by Nadeem Anees

Cisco continues to be the numero uno in UC

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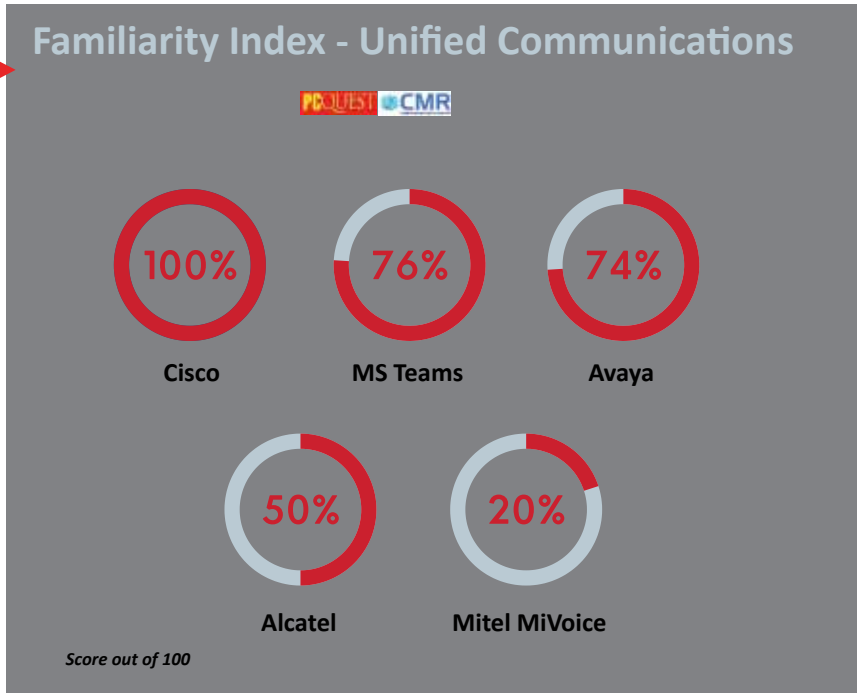
Besides Microsoft Teams, Avaya also came quite close to Cisco in the Familiarity and Spontaneous Awareness survey findings

Enterprises operating in varied industry verticals can get several benefits with Unified communication (UC) solutions. UC solution providers have introduced innovative solutions to enable ease of access and a high level of interoperability. According to a report by Allied Market Research the global unified communication market size is projected to reach $74,244 million by 2023.

Cisco wins all the segments of this category and becomes the winner. Microsoft becomes the first runner-up followed by Avaya.

In the familiarity index, Cisco got the maximum score – 100 per cent leaving competitors far behind. Microsoft Teams was in the second spot with a score of 76 per cent. Avaya got 74 per cent followed by Alcatel (50 per cent) and Mitel MiVoice (20 per cent).

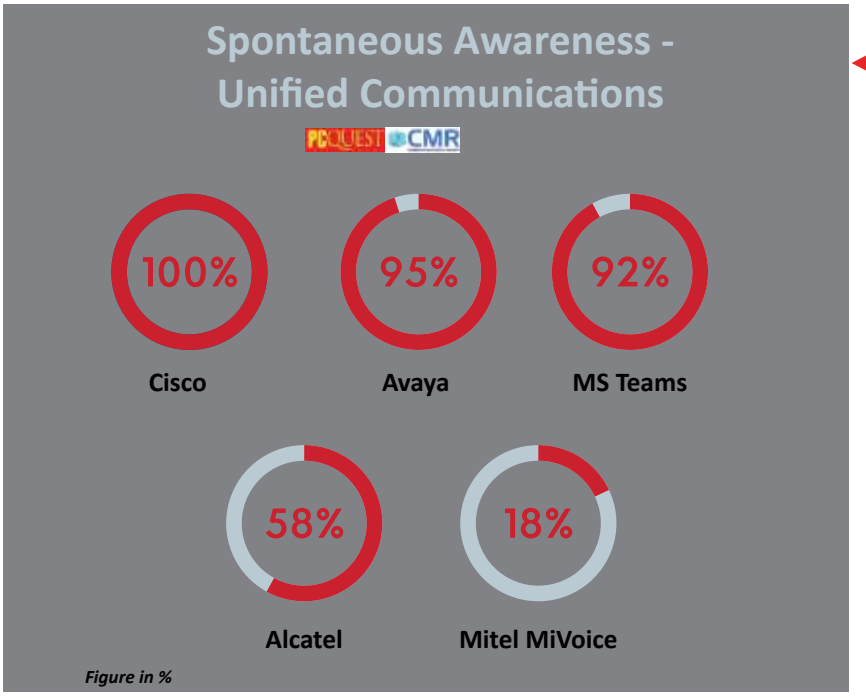






MS Teams likely to become a strong rival to Cisco in the near future

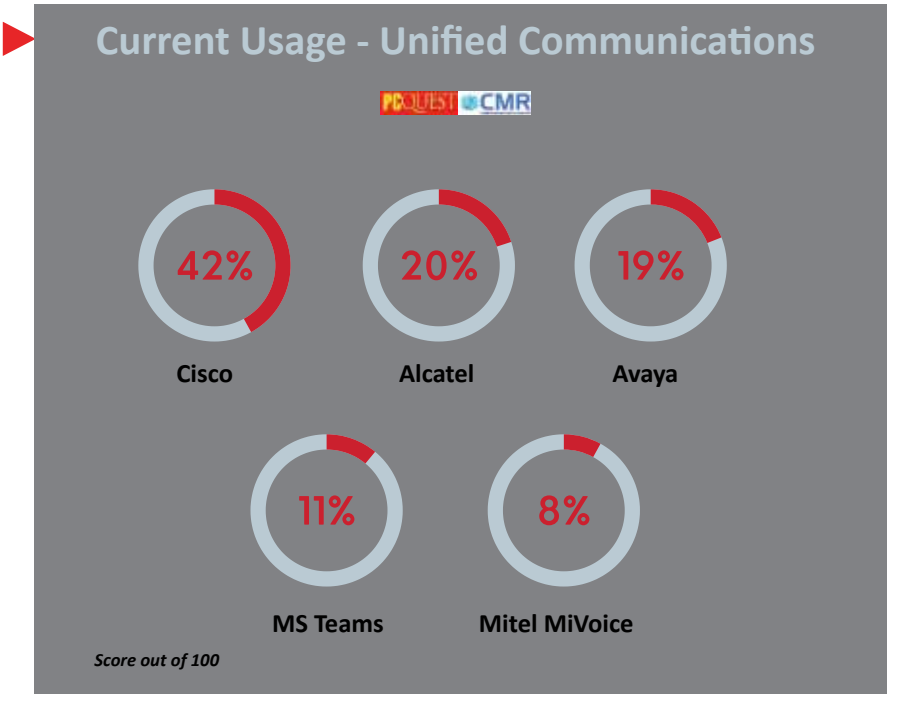
As I mentioned earlier as well, Cisco sweeped the competition in the category. In our Spontaneous Awareness survey, it scored 100 per cent once again. This time Avaya was quite close to Cisco with a score of 95 per cent. The MS Teams however slipped to the third spot with a 92 per cent score. Alcatel and Mitel MiVoice followed with a score of 58 and 18 per cent respectively.



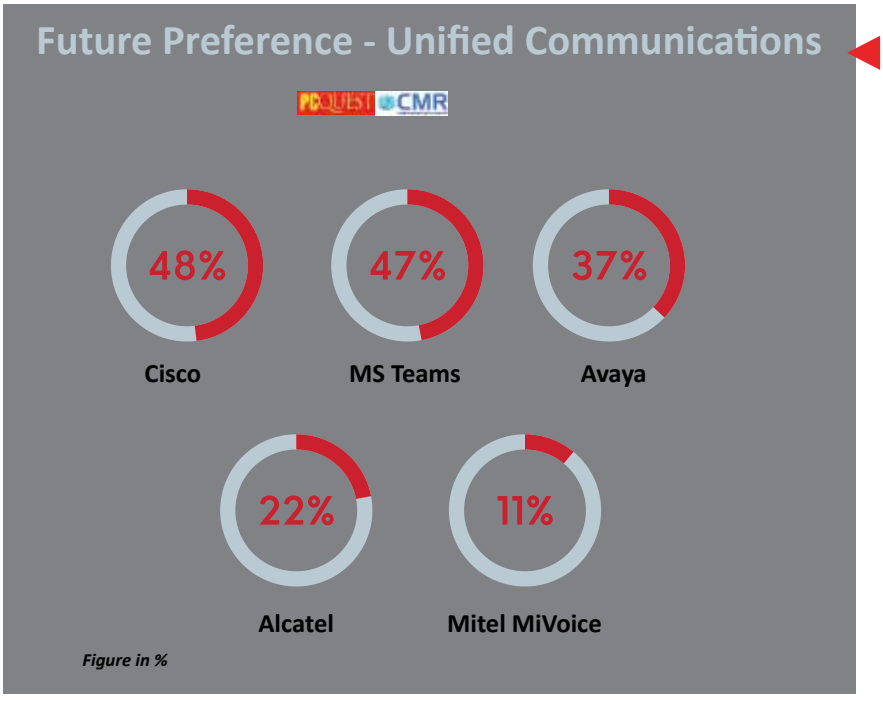


Almost 42 per cent of our respondents are currently using Cisco UC solutions and they are quite satisfied with it. Alcatel and Avaya were close with a score of 20 per cent and 19 per cent respectively. But MS Team went to the fourth spot with 11 per cent followed by Mitel MiVoice – 8 per cent.





Though most people are not using MS Teams currently, in future it is going to become a strong rival to Cisco. As you saw in the current usage chart MS Team was on the fourth spot, but in future considerations, it got a good jump and once again became the first runner-up. Cisco without a doubt, became the winner of the segment. Avaya scored 37 per cent followed by Alcatel (22 per cent) and Mitel MiVoice (11 per cent).





Cisco is the most popular brand and it will rule in the future as well, but why? Our respondents considered Cisco and MS Team UC solutions for the brand name and quality of the solutions. Avaya and Mitel MiVoice were considered for its after sales support/service and Alcatel for its pricing.

Reasons for Using Current Unified Communications

	Cisco	MS Teams	Avaya	Alcatel	Mitel MiVoice
Brand Name					
Quality of Service/Solution					
Pricing					
After Sales Support / Service					

High

Illustration by Nadeem Anees

Zoom steals the spotlight as the most-loved VC solution

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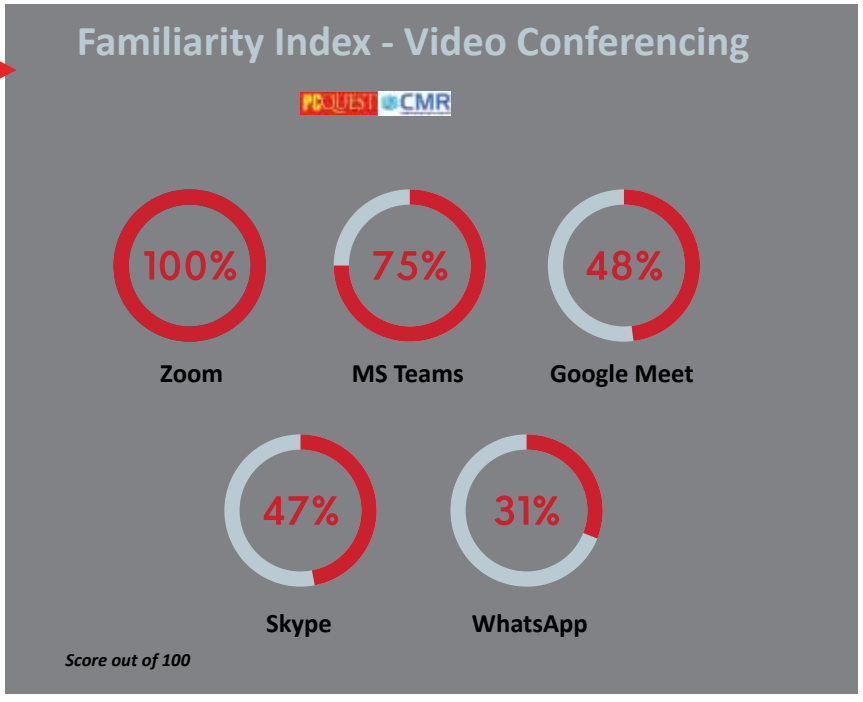
All the users could spontaneously recall Zoom, MS Teams, and Google Meet, but Google Meet has not been able to make a mark in terms of usage

The pandemic locked us inside our houses and VC solutions were the only option to communicate with our customers and teammates. Whether internal or external, every meeting was online, this gave a huge push to the Video Conferencing (VC) market. The global VC market is projected to grow from $6.28 billion in 2021 to $12.99 billion in 2028 at a CAGR of 10.9 per cent during the forecast period. And India is no different, according to Research and Markets, India VC market Size is projected to grow at a CAGR of 1.5 percent during 2021-2027.

Zoom wins the category as it is loved for both personal and professional meetings. MS Teams became the first runner-up and Google Meet got the second runner-up spot. All three are the leading names in the industry and that is reflected in our further findings as well.

In our Familiarity Index, Zoom was loved by everyone, scoring 100 per cent. MS Teams was the next with 75 per cent and Google Meet got the second runner-up spot with 48 per cent. Skype (47 per cent) was introduced in 2003 and was used by almost every professional for some of the virtual meetings, but has lost its charm nowadays. WhatsApp (31 per cent) is also popular, but mostly for personal use.

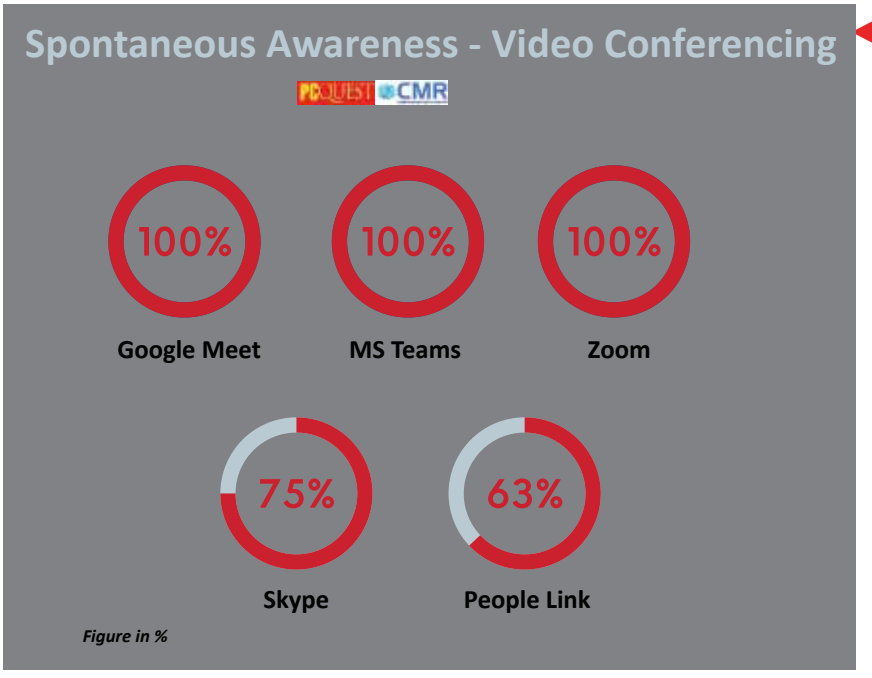






Zoom rules the market now and will do so in the future as well

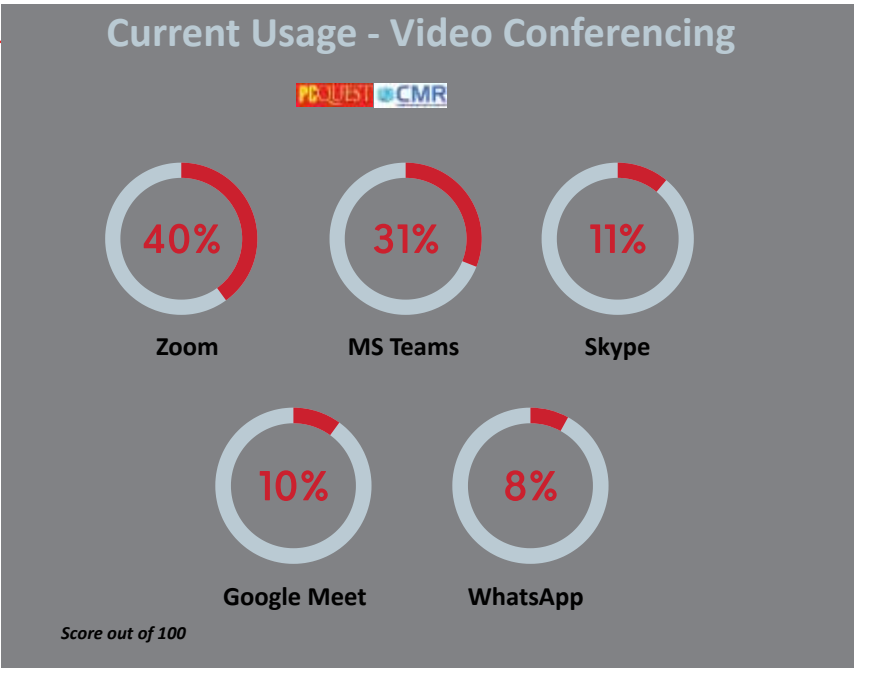
Everyone was able to spontaneously recall all the three major brands – Zoom, Google Meet, and MS Teams. This is amazing, we never got such results ever, this means all the three brands are well known and are being used by almost all the professionals, followed by Skype (75 per cent) and People Link (63 per cent).



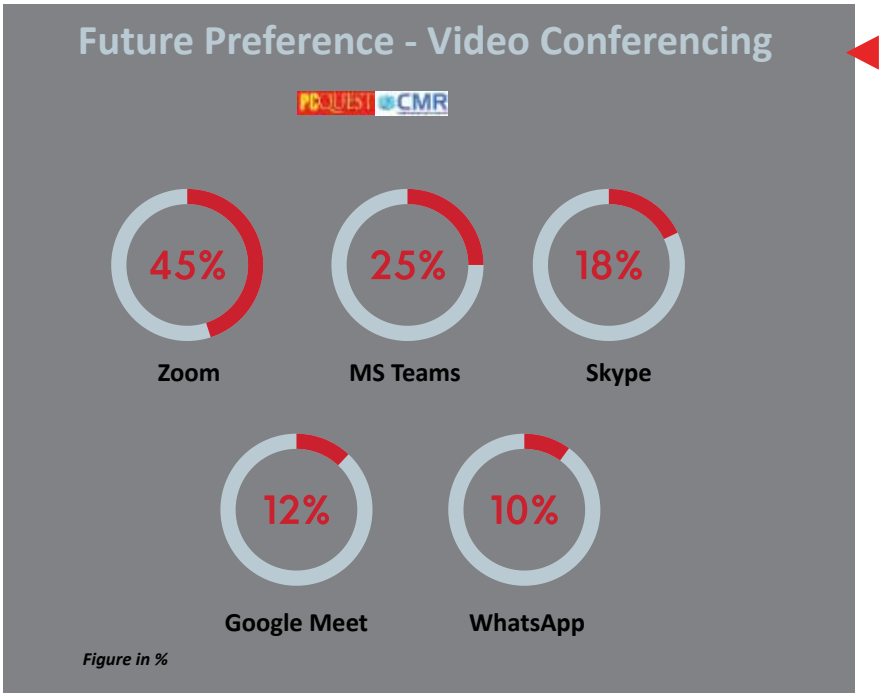


When we asked which brand's VC solution they are using, Zoom got the maximum score – 40 per cent. MS Teams was next with a score of 31 per cent followed by Skype (11 per cent), Google Meet (10 per cent) and WhatsApp (8 per cent). Though all three are popular majorly for business meetings, Zoom is being used by professionals and individuals alike. Despite being a known name, Google Meet has not been able to make a mark in terms of usage.





What will be the future? The answer is Zoom (45 per cent), the most used and loved brand for VC solutions, maybe for its simplistic UI and free to use features. MS Teams (25 per cent) will gain in the future and interestingly Skype (18 per cent) too. Google Meet (12 per cent) and WhatsApp (10 per cent), however, are not likely to gain much unless they do something amazing in the future.





When asked for reasons, Zoom was preferred for its quality and pricing. MS Teams was considered for brand name and after sales support/service, while Skype was preferred for quality of the solution. Google Meet and WhatsApp got attention for their pricing.

Reasons for Using Current Video Conferencing

	Zoom	MS Teams	Google Meet	Skype	WhatsApp
Brand Name					
Quality of Service/Solution					
Pricing					
After Sales Support / Service					

High

Illustration by Nadeem Anees

Juniper emerges winner with Cisco a close second

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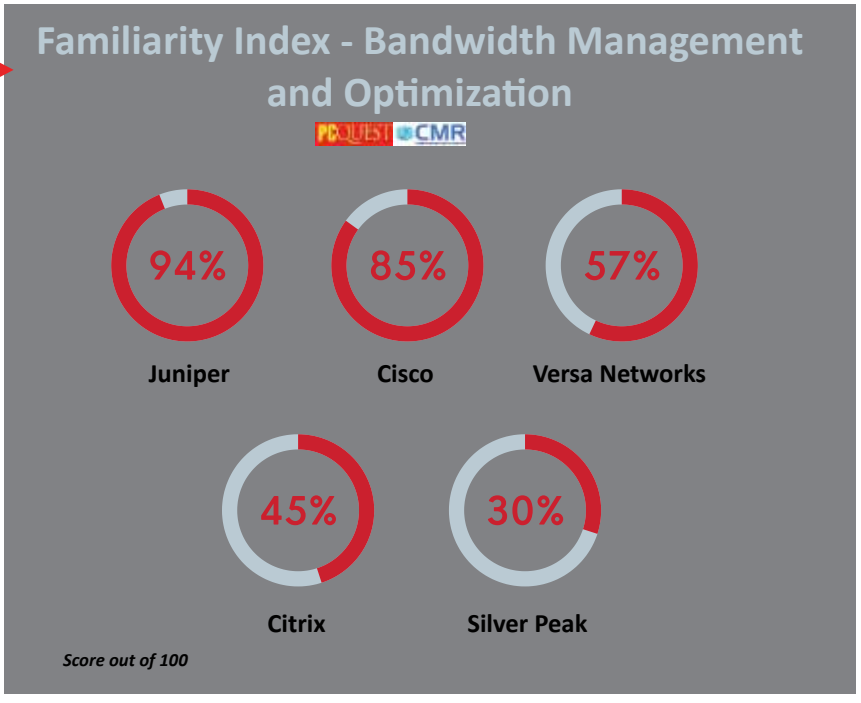
Juniper and Versa Networks are likely to grow stronger in the future as most of the respondents preferred them for their next purchase

Networks are the backbone of any enterprise IT infrastructure, for all types of communication and data transfer requirements. Thus, the network bandwidth management solution becomes essential for IT admins to monitor and control the bandwidth of the enterprise networks. According to Research and Markets, the growth of the network bandwidth management software market is expected to grow at a CAGR of 12.2 per cent during 2021-2026.

Juniper becomes the winner in this category, preferred by most of the respondents. Cisco, despite being popular, ended up the first runner-up spot followed by Versa Networks.

In our Familiarity Index, Juniper scored the highest (94 per cent). Cisco (85 per cent) wasn't far behind, in the first runner-up spot. Versa Networks got the next place with a 57 per cent score followed by Citrix (45 per cent) and Silver Peak (30 per cent).

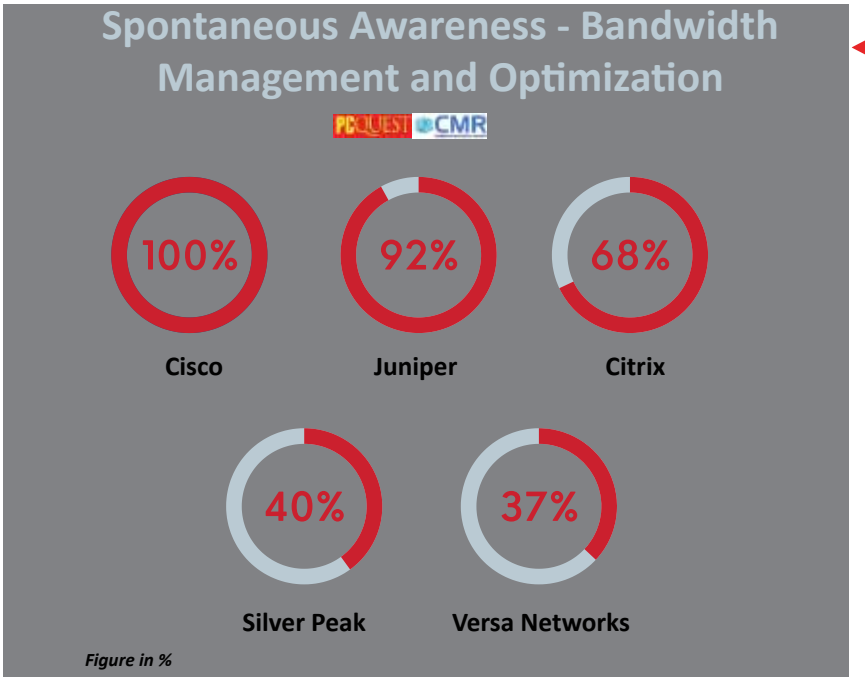






Cisco maintains its lead as the most popular brand in Bandwidth Management

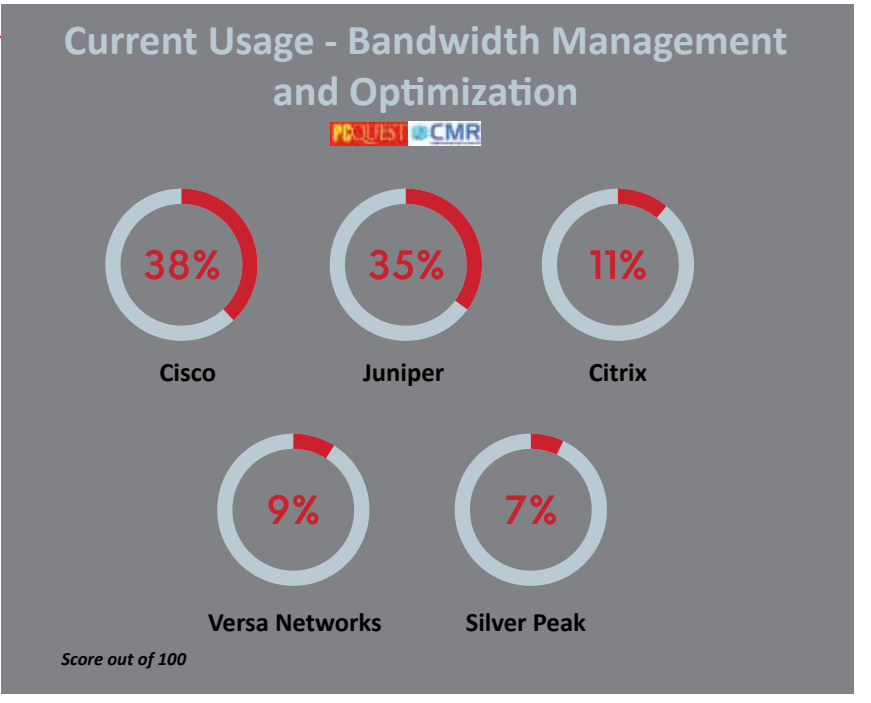
However, Cisco is more popular than Juniper and that got validated in our Spontaneous Awareness, where Cisco scored 100 per cent, and Juniper came in the second spot with a score of 92 per cent. Citrix got next place with a 68 per cent score followed by Silver Peak (40 per cent) and Versa Networks (37 per cent).



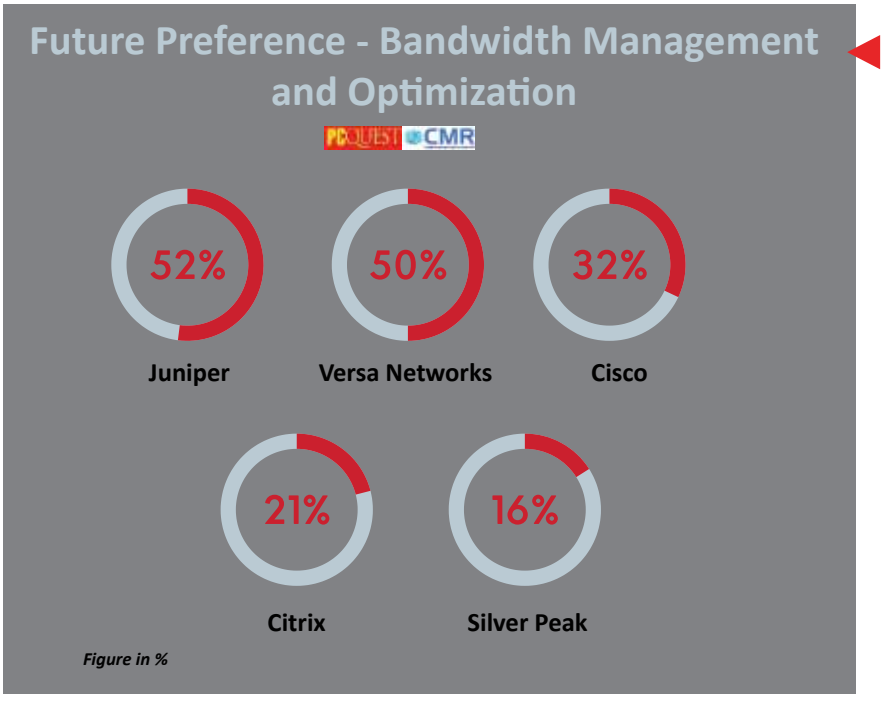


Once again, Cisco grabbed the winner's spot when we asked participants which brand they are using currently. Cisco gained the highest score (38 per cent) closely followed by Juniper (35 per cent). Citrix got an 11 per cent score followed by Versa Networks (9 per cent) and Silver Peak (7 per cent).





What will be the future? Juniper and Versa Network are likely to gain more in the future as most of the respondents preferred these two brands for their next purchase. Cisco slipped behind Versa Networks despite being the most popular and also the most used brand currently. Citrix also slipped from its spot. Silver Peak maintains its position in the fifth place, meaning existing customers would consider it in future as well.





Let's see what was the reason behind choosing these brands? Juniper was preferred for its brand name and after sales support / service. Cisco was popular for its brand name and quality of the solution. Citrix was trusted for its quality. Versa Networks and Silver Peak were considered for their pricing.

Reasons for Using Current Badwidth Management and Optimization

	Juniper	Cisco	Versa Networks	Citrix	Silver Peak
Brand Name	■	■			
Quality of Service/Solution		■		■	
Pricing			■		■
After Sales Support / Service	■				

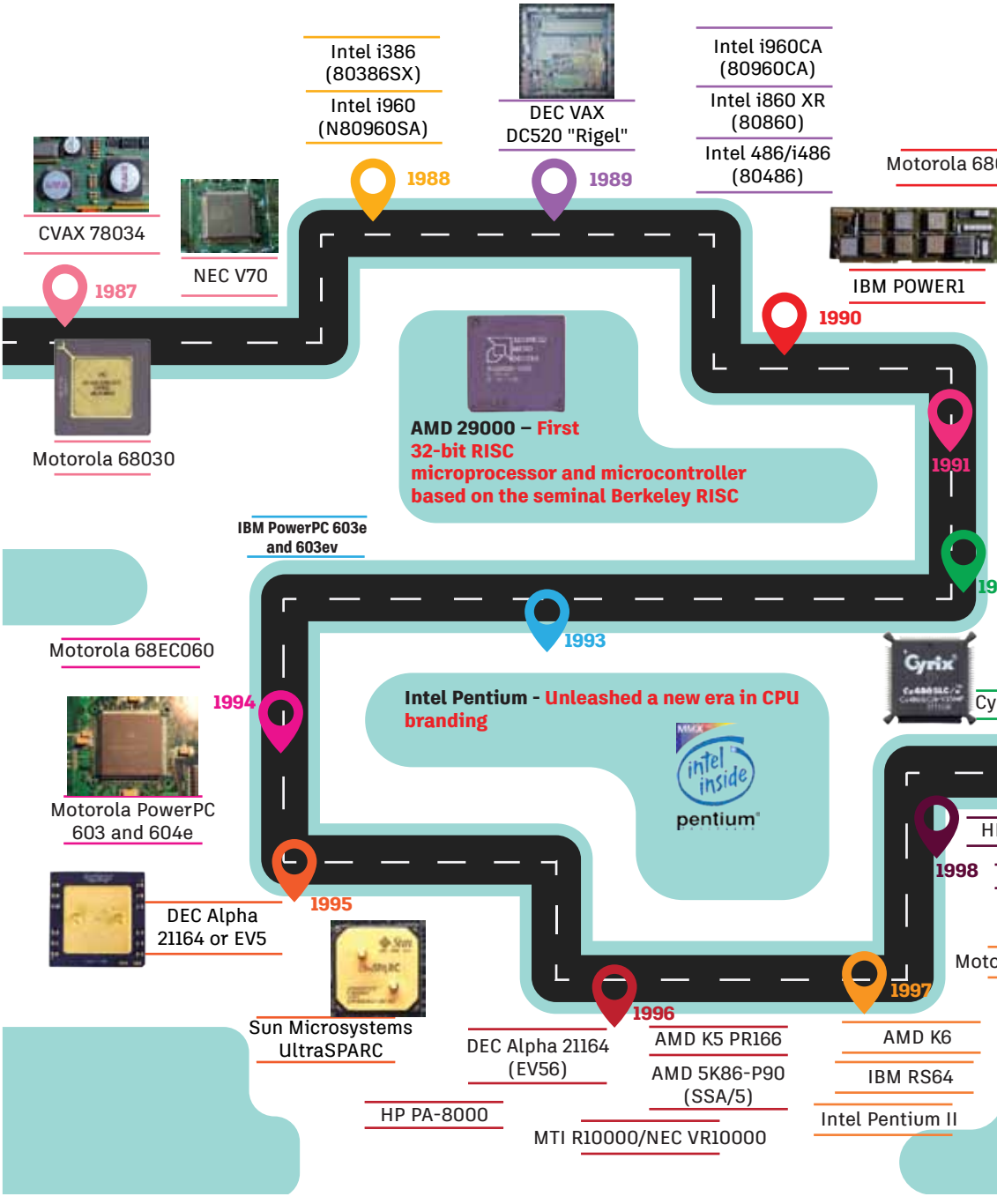
■ High

Illustration by Nadeem Anees

35 YEAR 1987 - 2021

35 Years of CPU: A Brief Timeline

CPU's advancement in the last three decades (1987 - 2021)





AMD Llano APU – First-generation desktop and laptop Accelerated Processing Unit (APU)



AMD Ryzen – First x86-64 microprocessor based on the Zen microarchitecture supporting multiple devices

Intel Core i7-920

AMD Opteron Shanghai

Intel Xeon Beckton

IBM POWER7

Intel Itanium Tukwila

AMD Opteron Magny-cours

Intel Xeon Nehalem-EX

IBM z196

Intel Westmere

IBM POWER7+

Intel Itanium Poulson

IBM POWER8

Intel Broadwell

AMD A8-7670K

Intel Atom – Ultra-low-voltage microprocessor designed to reduce power consumption

2008

2009

2010

2011

Intel Sandy Bridge

Intel Xeon E7

2012

2013

Intel Haswell

2014

2015

2017

IBM z14

IBM POWER9

AMD Ryzen 2

IBM z15

2018

Intel Cannon Lake

AMD Ryzen+

2019

2020

Apple M1

2021

AMD Ryzen 5000

Intel Core i 11th Gen

Apple M1 – ARM-based SoC, Apple claims it to be the world's fastest CPU core "in low power silicon" device

2007

IBM POWER6

Sun Microsystems UltraSPARC T2

AMD Opteron Barcelona and AMD Phenom

AMD Phenom II

2006

Intel Itanium – Most popular mid-range consumer, workstation and enthusiast CPU

IBM PowerPC 970MP and IBM Xenon

Sun Microsystems UltraSPARC IV and T1

AMD Opteron 2212

Intel Pentium D

2005

AMD Athlon 64 X2 – First native dual-core desktop CPU

Intel Core 2

Intel Itanium – Designed for enterprise servers and HPC

1999

Sony Emotion Engine CPU-Developed for PlayStation 2 video game console

2004 IBM PowerPC 970FX

2003

AMD Opteron 240 – Extended Intel's x86 instruction set to incorporate 64-bit support, also adopted by Intel later

IBM PowerPC 970

Intel Pentium M

2000

AMD Athlon Thunderbird

Intel Pentium 4

AMD Duron

2001

Motorola PowerPC 7450

AMD Athlon XP

2002

Intel Itanium 2

AMD K6-III

Intel Pentium III

AMD Athlon Classic - First desktop processor to reach speeds of 1 GHz

Research by Ashok Pandey

PCQUEST

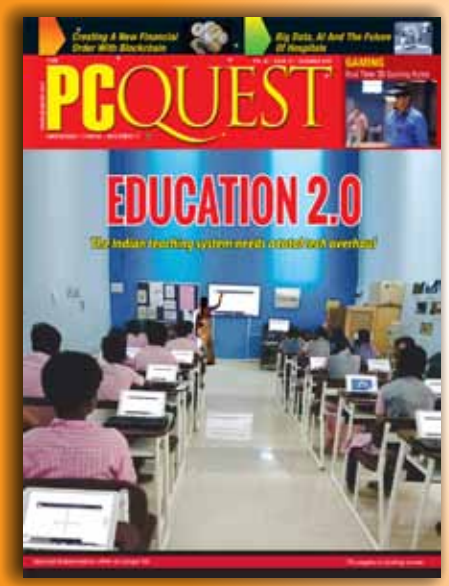
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Diagnostic errors threaten patient safety, AI saves the day

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Medical diagnostics is badly hit by the dearth of experts and increasing diagnostic errors. An increasing demand for diagnostic services and shorter interpretation times are adding to the woes. AI comes to the rescue

Unstructured data, legacy solutions, and a lack of analytical capabilities have kept healthcare ecosystem players devoid of any actionable insights, keeping them away from unlocking the full potential of Digital also. Infusing data-driven insights and digital technologies in the Healthcare ecosystem can transform patient experience with precision medicine and care delivery.

From making the first industrially manufactured X-ray machines in 1896 to becoming the world's biggest maker of medical imaging equipment, Siemens Healthineers has an illustrious history in medical diagnostics. Now the company is investing heavily on digital and intelligent solutions to transform healthcare. Siemens Healthineers India has announced an investment of INR 1,300 crore over the next five years to drive digitalization of healthcare by setting up an innovation hub in Bengaluru last year. ***Dileep Mangsuli, Head, Development Center, Siemens Healthineers*** sheds light on some of the innovations that the solution provider has pioneered already.

▼ What kind of innovations Siemens Healthineers' innovation hub in Bengaluru will be focusing on?

The Bengaluru campus will be one of four innovation hubs of the company, with other hubs located in the United States, Germany, and China. It will be housed in a new state-of-the-art campus that combines the existing R₹D center and an ultra-modern medical imaging factory. The innovation hub will include centers of competence in digital technologies such as data analytics, artificial intelligence, immersive technologies like augmented and virtual reality, user experience, and cybersecurity.

The innovation hub will strengthen our commitment to advance healthcare through cutting-edge digital technologies as well as through accessible and affordable innovations driven from India. It will play a key role also in taking our business to the next level by driving digitalization and expanding our portfolio for emerging markets. We will also be adding 1,800 digital talents in the next ten years over and above our regular growth.



DILEEP MANGSULI, Head, Development Center, Siemens Healthineers

▼ How are you advancing the use of intelligent digital tools and technologies across diagnostics?

We believe the future of healthcare will be digital. It means finding ways to derive actionable insights from the vast amounts of healthcare data generated, which doubles every 73 days. With the demand for diagnostic services outpacing the supply of experts, radiologists face growing workloads and shorter interpretation times that can lead to an increase in diagnostic errors. Furthermore, diagnosis and treatment are also becoming more complex. AI-based solutions can help capture emerging opportunities and address the related challenges.

For example, the AI-Rad Companion automates routine radiological workflows and pinpoints areas in an image that may need a closer look. It helps reduce the burden of repetitive tasks of radiologists and can increase diagnostic precision.

On the other hand, AI-Pathway Companion that facilitates personalized and standardized diagnosis and treatment decisions along disease-specific care pathways. It intelligently integrates longitudinal patient data and co-relates insights from imaging, pathology, laboratory, and genetics with the support of AI and smart data integration techniques while managing complexity and data overload.

We have been advancing the use of AI in healthcare for more than 20 years. These are two examples of how digital technologies are

making medicine more precise by improving diagnostic accuracy and reducing unwarranted variations.

▼ Could you tell us about some of the innovations that Siemens Healthineers pioneered or came in handy during the pandemic?

As we continue to navigate through the COVID-19 pandemic, we are supporting caregivers with a whole portfolio of solutions from laboratory and imaging diagnostics to cope with the crisis.

For example, there was a critical requirement to get ahead of the spread of the SARS-CoV-2 virus with a fast and simple test. Our CLINITEST Rapid COVID-19 Antigen Test is a point-of-care cassette test that delivers results in 15 minutes. It does not require central laboratory analyzers and hence eliminates transport delays and associated costs.

We have developed AI algorithms that help quantify abnormal patterns in the lung, which can be associated with COVID-19, and to compute severity measures.

High resolution chest CT images are quite effective in detecting the severity of the lung involvement in COVID-19 patients, especially in patients with severe symptoms. It plays a significant role in the evaluation of the progression and remission of the disease. Our scanners of the SOMATOM go. platform provides high resolution lung imaging and are recommended for fast delivery requests in areas where COVID-19 is prevalent.

Our other solution, syngo Virtual Cockpit enables remote scanning and allows a more experienced technologist to support their colleagues in multiple locations. Remote scanning assistance improves care delivery and achieves a higher level of standardization for more accurate diagnoses. It addresses the shortage of specialized staff, which is a challenge for many radiology departments and their patients, who either must wait longer or need to travel to far locations for examinations. ■



Image Source: Siemens

https://AGRITECH

India harnessing tech for an agricultural turnaround

Rajesh Jalan
pcquest@cybermedia.co.in



Digital technologies have transformed agriculture. Adoption of AI and ML-powered solutions by the agribusinesses has helped enhance the farming process, resulting in better yields and better value per acre

Agriculture, along with its allied sectors, is unquestionably considered one of the largest livelihood providers in India. According to the Economic Survey, 2020-21, the share of agriculture in GDP reached almost 20 per cent for the first time in the last 17 years, making it an inevitable glory in GDP performance in 2020-21. The agriculture industry has undergone many technological advancements than what was followed as the conventional farming techniques at the initial stages. With various developments in place and the adoption of AI & ML-powered solutions by the agri-ecosystem, the sector can address major global issues like climate change, carbon emissions in agricultural practices, and many more.

The Indian agriculture sector, till the last decade, relied on traditional farming methods that were less productive and primarily manual. The farmers were at the mercy of the vagaries of nature. They had limited access to timely information regarding farming-related factors such as weather, soil quality, seed quality, etc. They did not have access to institutional financing either and struggled to make ends meet. They were fleeced by middlemen and moneylenders and were barely able to make a livelihood.

Over time, with government initiatives and the involvement of the private sector, agribusinesses have cropped up to help the marginal farmers. Today, many farmers grow crops for agribusinesses and have been introduced to modern technologies that improve the farming process, resulting in better yields and better value per acre.

▾ Challenges faced by the sector before the introduction of technology

Challenges persist in the agriculture sector on various grounds. But it has to be agreed that before the introduction of technology, the agricultural industry in India was plagued by depletion of natural resources, changing climate conditions, conversion of agricultural land for non-agricultural use, scarcity of capital, insufficient storage, and warehousing capacity, logistical constraints, etc. These challenges mentioned above were more intricate than ever before. However, the brunt of their impact on crop output has been less provoking with technology.



RAJESH JALAN, Chief Technology Officer, CropIn

It was further aggravated by falling groundwater levels, inferior quality of seeds, low conversion to mechanization, and sub-optimal use of resources across the entire agri-value chain.

At the beginning of the 21st century, it was clear that things had to change drastically for the agricultural sector for the farmer to survive and eke out a livelihood. The need for harnessing the power of technology to help the farm sector was strongly felt. There were hardly any players in the industry as it was not viable to sell technological solutions to poor farmers.

However, with automation and technology, modern farming has changed drastically over the last decade. The availability of real-time insights regarding soil quality, water, weather changes, need for pesticides and fertilizers has ensured that farmers can use their efforts optimally and focus on the specific issues. This has led to better crop yields, reduced use of water, fertilizers, and pesticides, which has reduced food prices. It has improved the acceptance of local products in the market.



▾ Impacting the changing dynamics in Indian agriculture

Technological advancements are imperative to the attainment of sustainable development goals in agriculture. The Central Government expects to double the minimum income in agriculture by 2022. To make this lofty goal possible, it is essential to understand the effectiveness of intelligent technology and harness the power of Artificial Intelligence and Data Analytics in agriculture.

Precision agriculture, which helps optimum resource utilization, is driven by satellite imaging, GPS technology, sensors, smart irrigation, drones, and automation. This helps in the conservation of non-renewable resources as well as in the reduction of harmful chemicals. Timely insights help farmers to prepare themselves against extreme weather conditions and reduce crop losses.

Data from satellite images, sensors, and IoT devices help farmers to make smarter decisions by optimizing resources, mitigating risks, and maximizing crop yields. Traceability solutions from farm to fork provide transparency to the Agri supply chain and provide stakeholders with better control and improved quality compliance. This improves the acceptability of the products in international markets and gives the farmers a competitive edge. Financial inclusion and increasing small farmers' access to financial solutions contribute to the long-term goal of economic sustainability in agriculture.

▾ Indian Agri-ecosystem making a mark in the global arena

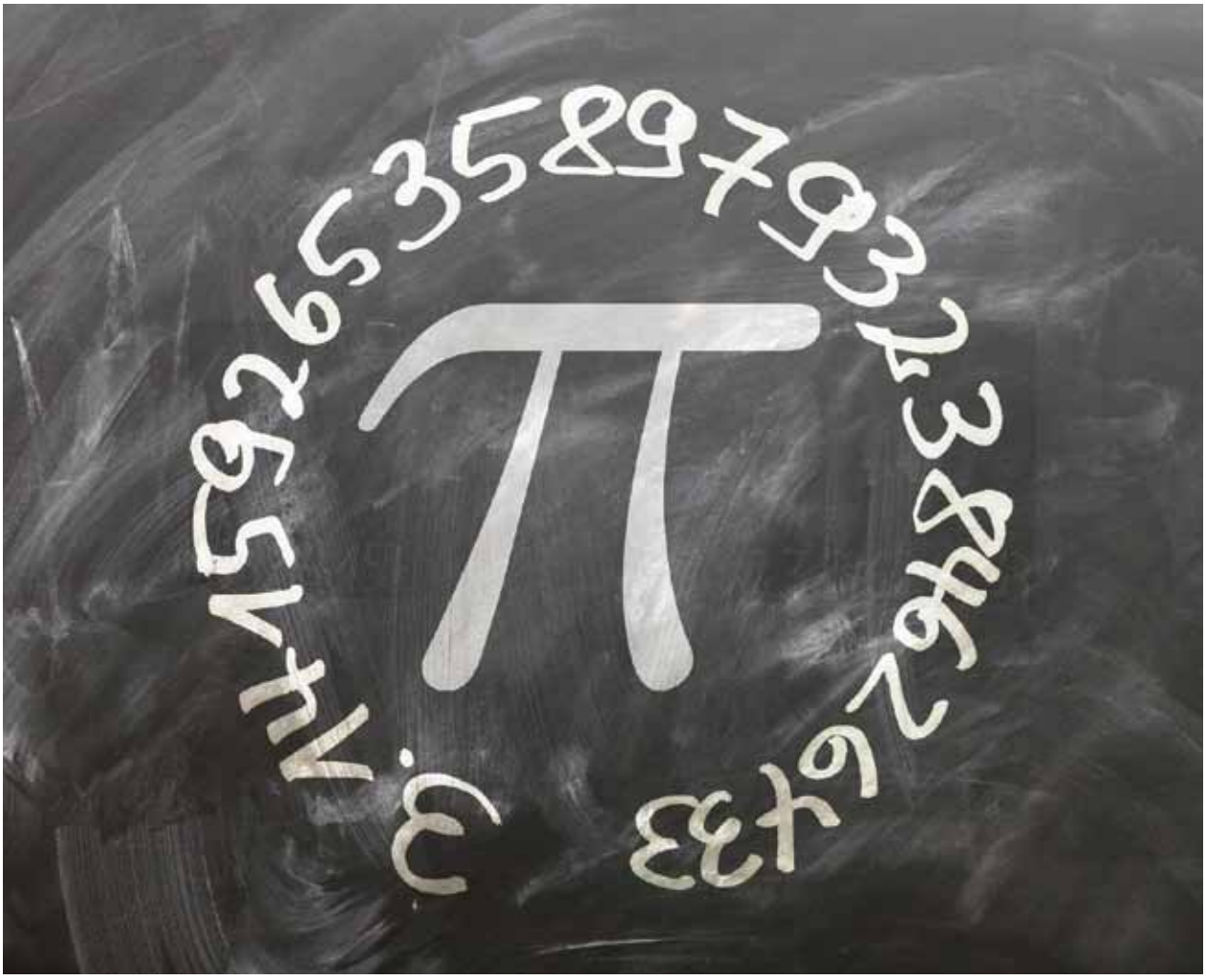
The future of agriculture seems robust with the direct intervention by the government in meeting sustainable development goals. Consumer spending in India is expected to return to growth soon after the pandemic-induced contraction. The Indian food industry is on the cusp of a massive growth cycle and ready to increase its contribution to the world food trade, especially within the food processing industry. According to the Indian Brand Equity Foundation, the Indian food and grocery market is the world's sixth-largest, and retail contributes 70 per cent of the sales.

The agricultural ecosystem is embracing technology but is yet to reach its full potential. Digitization has resulted in the complete transformation of agriculture by expediting its speed, scale, and productivity globally. It has provided the ecosystem with a diverse range of technological solutions to choose from to help them achieve their economic goals, whether it is remote sensing, GPS technology, AI, ML, IoT, or data analytics. The need to conserve the environment also increases the pressure to change the existing methods and switch to more sustainable solutions. The success of sustainable farming solutions will pave the way for alleviating the global food problem and securing the planet for future generations. ■

The author is Chief Technology Officer, CropIn

The after-life of Pi

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Are mathematicians and supercomputers strange friends or lost souls waiting to be united? We are learning more and more about it in this decade, and the latest record broken for Pi reminds us just that

Infinite is a meaningless word: except – it states - The mind is capable of performing an endless process of addition. Louis Zukofsky was underlining mathematics with philosophy so well when he said that.

That's what makes the cross-roads of machines and Mathematicians so interesting perhaps. Specially for puzzles that have challenged mathematicians for long. From the four colour theorem to the Diophantine equation, the summing of three cubes to cracking more decimals of Pi, many researchers have used supercomputing muscles to lift weights that used to slip between the fingers earlier.

In the latest feat where supercomputing and mathematics intersect, Swiss researchers have calculated the mathematical constant Pi. This has hit a new world-record level of exactitude, getting close to 62.8tn figures using a supercomputer. It is a calculation that took 108 days and nine hours. This marks a new milestone of pride for the Graubuenden University of Applied Sciences. Notably, the previous world-record Pi calculation was about 50tn figures. So why is Pi – the ratio of a circle's circumference to its diameter – so alluring to people who play with supercomputers? Is it because it has, plausibly, no repeating patterns? Why to chase trillions of decimals and do so by pushing hardware and software? Are we using Maths more and more in our lives to catch frauds and find patterns to save the world? Is that where we borrow a hitch-hike ride from the super-machines? And more importantly what next!

We get these answers, and many intellectual questions in return, from ***Thomas Keller, the project manager of the Pi challenge*** and ***Professor Heiko Roelke, head of DAViS***. Incidentally, DAViS is a part of the University of Applied Sciences of the Grisons. It is consolidating expertise in the area of high-performance computing (HPC) and HPC infrastructure for a mandate of the canton of Grisons. The DAViS Competency Centre also covers data mining, machine learning and simulation.

The team was running this computation to prepare its infrastructure for future use in research and development. Currently it is



THOMAS KELLER, Project Manager- Pi challenge

running computations in RNA Analysis, Fluid Dynamics and Deep Learning. Calculating Pi is just a by-product of that preparation. Let's calculate the 'why' in this interview.

▾ Why did you choose the Pi challenge – what is the mathematical or computational context/complexity that makes it a good candidate for supercomputing? Why do computing brains take the Pi challenge – and not something else – like the Tribonacci constant?

Keller: We chose Pi, because that's the constant most people can relate to. The Pi calculation was an ideal candidate, because our hardware is (accidentally) ideal for this type of algorithm.

▾ How does this accomplishment compare to some precedents in Pi calculation – like that of Google?

Keller: Google and Timothy Mullican, both did a fantastic job in calculating Pi to such incredible precision. We were able to leverage the latest hardware and our computer architecture just lends itself to calculating Pi. As said before, this is a coincidence though.

▾ What is noteworthy here – the number of figures cracked or the speed? If you could enlighten us on the 'why' that would be great.

Roelke: We think, for the public, noteworthy is primarily the number of figures discovered.

Calculation speed and especially fast data transfers are essential for our research projects. The Pi calculation serves as a hardware test, to build up know-how and as a showcase to the public.

▾ How can this feat be used for future application areas – which ones and how soon?

Keller: Calculating Pi to trillions of digits is meaningless for us too. We can't think of anything useful to do with 62.8 billion decimal places. Calculating this number was more of a fitness test for our infrastructure. This test was successful, however: We learned a lot and even detected some flaws in our infrastructure, namely in terms of backup size and transfer speed.

▾ Can you share something from your research pipeline – anything interesting in progress or planned next?

Keller: We are currently involved with RNA analysis, helping people find cures to atopical dermatitis. Another line of research is deep translation and more generally text processing. No Pi calculation here (he smiles).

▾ Does it intersect anywhere with Benford's law?

Keller: To my knowledge, Benford's law holds on collections of numbers from empirical research. I cannot see any connections to Pi.

As far as I know, it is an open question whether the digits in Pi are equally distributed. We did some checks on the numbers calculated as an intermediate result and it looks rather equally distributed – which is far from a proof and the check on the complete dataset is still to be done.

▾ Do we see Blockchain or Quantum Computers ever replacing or complementing what supercomputers are doing?

Keller: I have my doubts relating to Blockchains here but Quantum computers are progressing fast. Maybe we see way better algorithms in the near future. However, I doubt there will be an improvement for a sequential computation as in our case. But maybe there is a quantum Pi formula to be found?



PROFESSOR HEIKO ROELKE, Head- DAViS

▾ Do breakthroughs in Mathematics research help accelerate and elevate supercomputing or is it vice-versa?

Roelke: This works in both directions. Better algorithms make better use of the available hardware and may even stipulate new architectures. Some recent breakthroughs in Mathematics make heavy use of computationally searching for (counter) examples.

▾ Can better models and algorithms derived from Mathematics beat the supercomputer performance spikes that come due to hardware innovations or Moore's law?

Roelke: As said before, we are no experts in this field. Often this is more a co-evolution where both hard- and software plays its role.

▾ What role or shifts did supercomputing exhibit during the pandemic? What – in your reckoning- should be observed in terms of supercomputing's contribution?

Keller: I do not think that the pandemic changed much for the field of supercomputing. Maybe the field of computation has reached a bit more attention due to the trend to digitalisation. For the field of life sciences in general there is a lot to be expected e.g. in deep learning applications for chemistry and medicine. ■

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Ace the rapidly evolving cybersecurity game with Adaptive Cybersecurity

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COVID 19 has changed the way we do business. A global survey by Gartner states that 88% of the organizations surveyed have made it mandatory or encouraged their employees to continue their work from home, even after the pandemic goes away. Whether we like it or not, the perimeter is getting blurred gradually as Work from Home is certainly here to stay, said Ravindra Baviskar, Director- Sales Engineering (India & SAARC), Sophos Technologies during a live webinar held by PCQuest in association with Sophos, on the theme of "Adaptive Cybersecurity Ecosystem" or what is popularly known as ACE.

"As employees are no longer sitting in the trusted environment of the offices, they are accessing their corporate data and resources on an untrusted network. The adoption of public cloud platforms has also increased a lot, which means that the devices, the

services, and the applications which once used to run within the corporate perimeter now run outside of it. This new live anywhere and work anywhere culture has given attackers a larger attack surface to explore and it has become equally important for organizations to secure users wherever they are- whether they are in offices, or they are travelling, or they are working from homes. At the same time, you still need to secure the corporate boundary or the traditional perimeter too," explained he.

The shift in businesses due to COVID caused a considerable shift in the attack surface too and prompted an evolution in IT security. Attackers are increasingly combining automation with hands-on hacking to get around your defenses. They are also exploiting legitimate tools and behaving like an employee on your network to avoid detection. Stopping the evolved attack techniques requires a shift from security management to security operations.

The shift in businesses due to COVID caused a considerable shift in the attack surface too and prompted an evolution in IT security. IT security needs to enable a unique feedback loop, so that it can constantly learn and improvise to keep pace with this evolution

As businesses continue to evolve, security also needs to follow the same path. IT security teams need to move from loosely integrated point security solutions, to an adaptive cyber security system that can automatically prevent as much as it can. Business attack surface is always evolving, hence, IT security needs to enable a unique feedback loop, so that they can constantly learn and improve to keep pace with this evolution.

The webinar threw light on the topic to help cybersecurity professionals with the ideas and tips to deal with the new reality of interconnected business systems and the changing nature of attacks that combine automation with hands-on hacking.

An Adaptive Cybersecurity approach is extremely useful in this rapidly changing threat landscape- it focuses on Predict, Prevent, Defect, and Respond and combines it with policy and compliance measures to create a system with an ability to quickly detect, trace and respond when the event occurs.

Baviskar explained how Sophos ACE builds on and extends Sophos' synchronized security approach, brings together the power of Sophos' threat intelligence, next-gen technologies, data lake, APIs, and Sophos Central management platform, creating an adaptive cybersecurity ecosystem that constantly learns and improves, and enables cybersecurity teams to search and detect weaker signals of a threat and prevent them from becoming breaches.

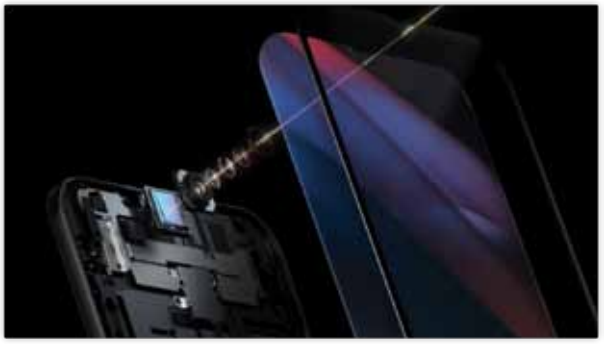
The webinar was followed by a live Q&A session on the new attack vectors, and organizations' preparedness to deal with them, where Baviskar was joined by Nishant Tripathi, Cybersecurity Consultant- North, Sophos Technologies and PCQuest Editor, Sunil Rajguru, who moderated the session.

"Organizations need to look at not only the prevention techniques, or the point solutions which can stop the attack, but consider investigation tools like Extended Detection and Response (XDR) or maybe Managed Threat Detection and Response (MTR) services so that they can get a complete and clear picture, and respond to the threats accordingly," said Nishant Tripathi, Cybersecurity Consultant-North, Sophos Technologies.

"To detect a loophole in software you need software. Likewise, to detect a human attacker you need human investigation," echoed Baviskar. While XDR is good for detection, our MTR service is extremely useful as it adds real-time data from our expert threat hunters to complement the detection data and build intelligence into the system, he said. ■

Category: **SMARTPHONE**

OPPO's next-generation under-screen camera (USC) technology for smartphones. By combining the best in hardware innovation and OPPO's proprietary AI algorithms, the new under-screen camera solution discreetly places the front-facing camera under the smartphone display in a way that maintains the integrity and consistency of the entire screen, both during use and while in standby. Offering the perfect balance between consistent screen quality and camera image quality, it is an under-screen camera solution with no comprises.



OPPO Next-Gen Under-Screen Camera Technology



vivo Y33s

Price starts at ₹17,990

vivo Y33s smartphone is designed to effortlessly capture your memorable moments, the vivo Y33s features a 50MP rear camera that redefines high-definition photography and takes every shot with pristine clarity. It sports an impressive 16.71cm (6.58") FHD+ (2408x1080) in-cell display and coupled with a massive 5000mAh battery and 18W Fast Charge support. The Y33s features a MediaTek Helio G80 octa-core processor and FunTouch OS 11.1 based on Android 11 that provides an invigorating user experience.

Category: **WEARABLE**



Fire-Boltt Ninja smartwatch

Fire-Boltt Ninja full touch screen smartwatch comes with an industry first touch to wake feature, and is packed in a full metal body.The inaugural price of this smartwatch is just Rs 1,799. It is equipped with key health-related monitors such as SPO2 sensor for tracking blood oxygen level, 24x7 Optical Heart Rate Sensor and Blood Pressure Tracker. The smartwatch accesses and shares all notifications received on the connected smartphone.

Category: **WEARABLE**



Noise ColorFit Pro 3 Assist Smartwatch

Noise ColorFit Pro 3 Assist launched at a special introductory price of INR 3999. The smartwatch comes with the addition of Built-in Alexa. The gleaming smartwatch is equipped with an industry-leading design, a sharp 1.55" Full touch colour HD TruView™ Display with a resolution of 320*360 pixels. Noise ColorFit Pro 3 Assist offers a long battery life, lasting up to 10 days, and 5 ATM waterproofing feature. The smartwatch enables Auto-Blood Oxygen (SPO2) monitoring and tracks multiple features such as stress, heart rate, and sleep, and comes with 14 sports modes.

Category: **AUDIO**

Soundcore's next-gen R100 TWS is more advanced and feature-packed. The product is launched at a special offer price of Rs. 1799. The TWS comes with the latest Hall-sensor Technology ensuring seamless connectivity within 3 seconds. Featuring 10mm dynamic drivers, the earbuds build an enthralling & immersive listening experience that is meant for today's millennial generation.



Soundcore R100 TWS earbuds



Noise Buds VS103 TWS Earbuds

Noise Buds VS103 TWS Earbuds launched at a special introductory price of INR 1499. The TWS is powered with Hyper Sync Technology that enables users to connect with their devices instantly every time. The slender design of the Buds VS103, with a 10mm driver size, fit comfortably in the ears. It comes with a charging case and Type C USB.

Category: **AUDIO**

VingaJoy BOUNCE Wireless Neckband

VingaJoy CL-5170 BOUNCE Wireless claims battery life of up to 10 hours nonstop playtime on a single charge. The neckband is priced at Rs. 2,499 and features Bluetooth 5.0 and it is compatible with both Android and iOS devices.





Soundcore R500 neckband

Priced at ₹1,399

Soundcore R500 is designed for on-the-move musical freedom, the neckband comes with an ultra-flexible fit, high bass, and super-long battery life. It supports fast charging (USB-C) that equals 10 min charge to 3-hour playtime. It supports 20 hours of playtime for whole day use on a single charge. The neckband features 10mm drivers for the immersive signature HD sound. It comes with Bluetooth V5.0 and is compatible with Android and IOS devices on the connectivity front.

Audio-Technica AT2040 brings professional broadcast-quality sound with exceptional vocal reproduction to podcasters and other content creators at an affordable price point.Featuring a stylish yet rugged all-metal construction, the AT2040 excels at isolated/up-close vocal reproduction and rejection of unwanted room noise due to its tight hyper cardioid polar pattern, ensuring professional-quality podcasts.



Audio-Technica AT2040 Hyper cardioid Dynamic Podcast Microphone

Category: **POWER BANK**



Ambrane Stylo Power Bank

Ambrane's 'Stylo' series of power banks are compact and come with Type C input. The series includes three variants – Stylo Pro, Stylo 20K, and Stylo 10K priced at Rs. 1999/-, Rs. 1499/- and Rs. 899/- respectively. The power banks are equipped with the quick charge 3.0 and come with a 180-day warranty. Stylo Pro comes with 27000mAh battery capacity and supports 20W of fast charging. Stylo 20K features 20000mAh capacity, and Stylo 10K features 10000mAh.

Category: **POWER BANK**



UBON POWERMAXX 10,000mAh Power Bank

Comes in Black and White colours priced at ₹2,699

UBON PB X-31 POWERMAXX power bank a 10,000mAh lithium polymer battery and short circuit protection. It comes with dual input charging ports (TypeC/V8) and dual USB ports that help in ultra-fast charging. The power bank output charging port with 2.1A comes with Over Voltage Protection.

Category: **PERSONAL COMPUTING**



Acer Predator Helios 300 gaming laptop

Priced starts at ₹89,990

Acer Predator Helios 300 is equipped with custom-engineered 5th Gen AeroBlade™ 3D Fan Technology bring significant cooling enhancements to keep the powerful laptop operating at peak performance and optimal temperatures. Powered with the new 11th Gen Intel Core i7 processor combined with the new Ray Tracing Cores & 3rd Gen Tensor Cores powered by Ampere –NVIDIA's 2nd gen RTX architecture backed by up to 32GB fast DDR4 RAM gives gamers plenty of power to play AAA titles with ease.



Lenovo IdeaPad Gaming 3i

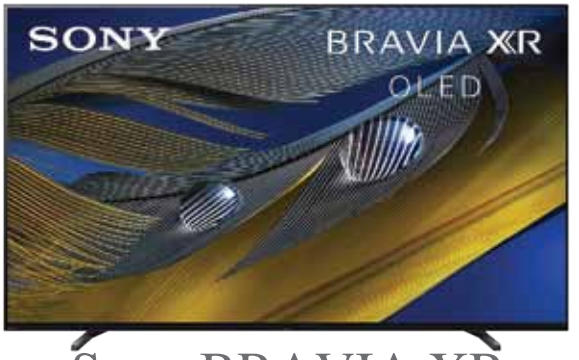
Lenovo IdeaPad Gaming 3i is powered by Intel 11thGen Core processors and the latest NVIDIA RTX 3050 GPU. This entry-level and affordable gaming laptop is built for overall performance, and aptly fits the needs of young adults and students. The 15.6" FHD IPS display with three sided narrow bezel and 84% AAR with a screen refresh rate of up to 120Hz, allows users to enjoy tear-free gaming that looks terrific from any angle.

Category: **PRINTER**

Canon MAXIFY GX7070 and MAXIFY GX6070 Pigment Based ink tank printers

Canon MAXIFY GX7070 and MAXIFY GX6070 Pigment Based ink tank printers come with water-resistant, fast printing and flexible paper handling, the two new printers are designed to combine productivity and laser printer-like efficiency and enable users to increase business productivity. Both printers contribute to a low total of ownership with increased efficiency thus making it an essential part of office functioning. A full set of ink delivers approximately 6,000 grayscale pages and 14,000 pages in colour, an Economy mode setting pushes output to 9,000 and 21,000 pages of grayscale and colour respectively.





Sony BRAVIA XR 77A80J OLED

Priced at ₹5,49,990

The Sony BRAVIA XR 77A80J OLED is powered by Cognitive Processor XR and comes loaded with supreme gaming capabilities such as HDMI 2.1, 4K120, ALLM & VRR. The 77A80J comes loaded with XR TRILUMINOS™ Pro with 3D colour algorithm reproducing true-to-life colours.The TV is a complete smart home entertainment package with Google TV, Apple AirPlay2, HomeKit and Hands-Free voice search.

The large screen televisions BRAVIA 85X85J is powered by X1 4K HDR picture processor, offering exceptional viewing experience. The TV comes loaded with supreme gaming capabilities such as HDMI 2.1, 4K120, ALLM & VRR.Enjoy cinema at home with Dolby Vision, Dolby Atmos, IMAX Enhanced along with Ambient optimization and Acoustic auto calibration technology. It comes loaded with TRILUMINOS™ Pro with 3D colour algorithm reproducing true-to-life colours. The large screen TV is a complete smart home entertainment package with Google TV, Apple AirPlay 2, and HomeKit. Coupled with X-Balance Speaker, the TV provids unmatched immersive sound experience in any environment.



Sony BRAVIA 85X85J

Priced at ₹4,99,990



Blaupunkt Android TV

Blaupunkt's 4k resolution 50-inch Android Smart TV is powered by Android 10 and has bezel-less screen, It comes with 60W speaker with Dolby Digital Plus, 4 speakers, and 2 GB Ram and 8 GB ROM. The screen offers a brightness of 500 nits and it has an in-built Chromecast & Airplay that supports 1000+ Apps. The set has exquisite features including a Voice–enabled remote. The tv models are starting from INR 14,999 which include a 32-inch HD Ready Cybersound Android TV, a 42-inch FHD Android TV, a 43-inch Cybersound 4K Android TV and 55-inch 4K Android TV.

Category: **PROCESSOR**



IBM On-Chip Accelerated AI Processor

At the annual Hot Chips conference, IBM shared details of the upcoming new IBM Telum Processor, designed to bring deep learning inference to enterprise workloads to help address fraud in real-time. Telum is IBM's first processor that contains on-chip acceleration for AI inferencing while a transaction is taking place.

Category: **STORAGE**



Western Digital Purple ProSmart Video Surveillance Solutions

The company has priced the WD Purple Pro HDD in 4TB at ₹8,999, 8TB at ₹25,999

Western Digital Purple Pro line is designed to handle heavy video workloads with optimized storage performance, capacity, workload capability and reliability for a myriad of devices, including AI-enabled network video recorders (NVRs), video analytics servers, storage arrays and storage/server solutions, including those that perform deep-learning analytics. WD Purple solutions includes upto 1TB WD Purple microSD cards for cameras and edge devices to 1TB-8TB WD Purple HDDs for NVRs; and now, WD Purple Pro drives from 8TB to 18TB to support a range of systems for AI-heavy workloads, including back-end enterprise servers.



ASUS ROG Strix Arion S500

Price in India starts at ₹1,44,990

ASUS ROG Strix Arion S500 comes with DRAM SSD that delivers transfer speeds as fast as 1050 MB/s. it has aluminum-alloy chassis and an internal thermal pad provide effective heat dissipation. The drive is secured by 256-bit AES disk and data encryption, along with bundled NTI Backup Now EZ software.It has USB-C 3.2 Gen 2 interface for superfast performance and wide device support, including the latest gaming consoles.

Category: **SECURITY**



Fortinet FortiGate 3500F Firewall

Fortinet FortiGate 3500F Next-Generation Firewall(NGFW) protects organizations with hybrid data centers against the ever-growing threat landscape and ransomware attacks. FortiGate 3500F offers some of the industry'shighest performance numbers, including TLS1.3, with automated threat protection postdecryption.

Category: **CAMERA**



Canon XF605 4K Camcorder

Canon XF605 professional camcorder with a 1.0-inch CMOS sensor and the ability to record 4K/50p/4:2:2/10-bit/HDR video to SD cards. It has the option of high-image-quality HDR recording and high-framerate 120 FPS recording in Full HD. Using the CTM mobile app for iOS, the XF605 can connect and transfer recorded video data via cable or wirelessly to iOS devices and transfer data to FTP servers at broadcast stations or other locations, thus enabling faster and more efficient workflows for broadcast operations.

Category: **PROJECTOR**



ViewSonic M1_G2 and M1+_G2 Ultra-Portable LED Projector

ViewSonic's next-genM1_G2 and M1+_G2 projectors offer 300 LED lumens delivering a convenient, enjoyable entertainment experience anywhere it goes. These projectors can also be powered by a power bank. Additionally, the M1+_G2 projectors is also embedded with 'Bluetooth Out' feature which helps connecting to external headphones or speakers that support Bluetooth.With a built-in battery, a LED light source with up to 30,000 hours of lifespan, all packaged into less than 1 kg, the M1_G2 can deliver years of multimedia entertainment. Stereo Harman Kardon speakers provide room-filling sound for an amplified audio experience, while a 1.2 throw ratio enables you to go big even in small spaces.

Category: **DRONE**



Indo Wings Cyber One drone

Indo WingsCyber Onedrone comes with a 360-degree radar sensor, 30x zoom camera, and over 65 mins of flying time with the top speed of 80-100km/h. Additionally its night vision camera, artificial intelligence based, one touch flight makes it one of the most unique technologies ideal for monitoring and mapping in various sectors like gas leakage detection in oil and gas refineries, pipeline inspection, solar energy farm thermal mapping, forest mapping, roads and railways, mining and agricultural mapping.

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RNI No. 45949/87 DPR No. DL(S)17/3319/2020-22 (Published on 1st of every month)
Posting Date: 3&4 every month. Posted at Lodhi Road HPO

