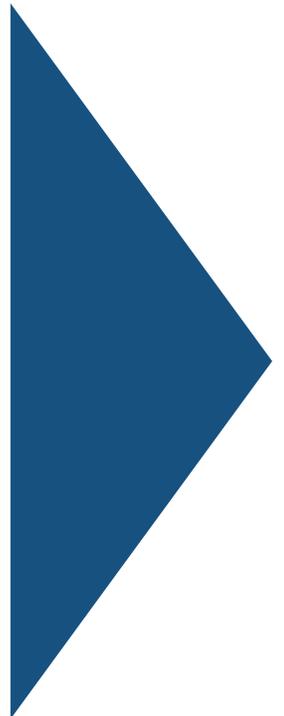


HP LaserJet
Customer Experience
Study
North America

Photizo Group
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Executive Summary

In an HP sponsored study, conducted by Photizo Group, users of HP monochrome and color LaserJet devices were surveyed about their experience using HP and non-HP toner cartridges. Survey participants were from two (2) North American Countries: Canada and the United States. A total of 2,002 HP monochrome and color LaserJet business users were surveyed.

For participants to qualify in the study, users must have had experience using both non-HP toner cartridges and Original HP toner cartridges in their LaserJet printers within the past year. This was required so that users would be in the best position to make comparative judgments about the performance of each cartridge type.

Overall, the research found that users are far more likely to encounter problems when using non-HP cartridges compared to Original HP cartridges. The study also confirmed that both the frequency and the relative severity of problems encountered are greater when using non-HP cartridges.

Study Objectives

The study objectives were designed to uncover and quantify the impact of LaserJet printing problems attributable to using non-HP toner cartridges as compared to Original HP toner cartridges.

Specific areas assessed include:

- Types of problems users experience
- The impact of the problems and how it affects user productivity and contributes to the hidden cost
- Number of people impacted by a cartridge problem
- Printer downtime due to problems
- How much time is spent resolving poor print quality and cartridge problems
- How cartridge problems are resolved
- How many users outsource print jobs due to cartridge problems

Study Methodology

- Research was conducted using an on-line survey among business users in Canada and the United States.
- Research is based on 1,002 HP monochrome LaserJet users, and 1,000 HP color LaserJet users. All respondents must have had experience with using both Original HP and non-HP toner cartridges in the past 12 months.
- The survey includes office users ranging from small to large. Respondents from business sizes include:

| Business Size | % of Users |
|----------------------|-------------------|
| Micro/Small (1-99) | 29.7% |
| Medium (100-499) | 24.7% |
| Large (500-999) | 23.5% |
| Enterprise (1,000+) | 22.1% |

- Data for both the HP monochrome LaserJet users and color LaserJet users were collected from December 2016 to January 2017.
- Questions were also asked about problems encountered (type and severity) with Original HP toner cartridges to establish a baseline.

Study Findings

The results illustrate the tradeoffs in using non-HP cartridges, and offer consumers a concrete measure of satisfaction, productivity, and, ultimately, money at risk when using non-HP cartridges.

Overall Problems – Color and Monochrome Cartridges

- Almost half (47%) of non-HP toner cartridge users experience problems with those cartridges.
- Using non-HP toner cartridges increases the chance of experiencing a printing problem by 40%.

Print Quality

- 44% of non-HP toner cartridge users have a problem with print quality.
- Using non-HP toner cartridges increases your chance of a print quality problem by 30%.

Problem Cartridges and Printer Damage

- 14% of non-HP toner cartridge users have a cartridge that fails, leaks, or runs out of toner prematurely.
- Using non-HP toner cartridges increases your chance that the cartridge will fail, leak, or run out of toner prematurely by 60%.
- Using non-HP toner cartridges increases your chance of damaging the printer by 50%.

Printer Downtime and Hidden Costs

- 34% of non-HP toner cartridge users turn to the help desk, admin, or technical support to help resolve their cartridge problems.
- Almost 20% of LaserJet users who experience a problem with a non-HP toner cartridge end up using an Original HP cartridge to get the job done.
- When non-HP toner cartridge users experience a problem, 36% of them must reprint at another printer.
- Over 1 in 4 LaserJet users pay to use an outside print shop due to printing problems caused by non-HP toner cartridges.
- Using non-HP toner cartridges increases your chance of printer downtime by 20%.

- 19% of non-HP toner cartridge users experience printer downtime as a result of cartridge problems.
- For users who said their HP LaserJet printer was down for 8 hours or more, the average down time was 12.47 hours.
- When users experienced a problem, they spent an average of 16.62 minutes to describe the problem and get information in order to have the problem resolved.
- It takes users an average of 5.7 minutes to remove the toner cartridge.

Experiences Using Non-HP Cartridges in a HP LaserJet Printer

- On average, 9 people regularly used the HP LaserJet printer (the median value is 4 people).
- It took an average of 1.32 minutes for users to walk to the HP LaserJet printer from their desk or workspace.
- It took users an average of 11 seconds to review their print job and decide if it was acceptable after collecting their pages from the HP LaserJet printer.
- 32.9% of pages printed on the HP LaserJet printer were for external use.
- 40.2% of pages printed on the HP LaserJet printer were for internal use.
- 26.9% of pages printed on the HP LaserJet printer were for individual use.

Overall Problems – Color

- Using non-HP color toner cartridges instead of Original HP cartridges increases the chance of experiencing a printing problem by 30%.
- 52% of non-HP color toner cartridge users experience problems with those cartridges.

Print Quality

- Using non-HP color toner cartridges increases your chance of a print quality problem by 20%.
- 50% of non-HP color toner cartridge users have a problem with print quality.

Problem Cartridges and Printer Damage

- 13% of non-HP color toner cartridge users have a cartridge that fails, leaks, or runs out of toner prematurely.
- Using non-HP color toner cartridges increases your chance of damaging the printer by 60%.
- Using non-HP color toner cartridges increases your chance of a cartridge problem by 70%.

Printer Downtime and Hidden Costs

- 24% of non-HP color toner cartridge users experience printer downtime as a result of cartridge problems.

- 41% of non-HP color toner cartridge users turn to the help desk, admin, or technical support to help resolve their cartridge problems.
- 16% of HP Color LaserJet users who experience problems with non-HP toner cartridges end up using an Original HP cartridge to get the job done.
- When non-HP color toner cartridge users experience a problem, 78% of them must reprint at another printer.
- Using non-HP color toner cartridges increases your chance of printer downtime by 20%.
- 32% of LaserJet users pay to use an outside print shop due to printing problems caused by non-HP color toner cartridges.
- For users who said their color printer was down for 8 hours or more, the average down time was 12.45 hours.
- When users experienced a problem, they spent an average of 17.14 minutes to describe the problem and get information in order to have the problem resolved.
- It takes users an average of 6.46 minutes to remove the color cartridge.

Experiences Using Non-HP Cartridges in a HP Color LaserJet Printer

- On average, 10 people regularly used the HP Color LaserJet printer (the median value is 8 people).
- It took an average of 1.42 minutes for users to walk to the HP Color LaserJet printer from their desk or workspace.
- It took users an average of 11 seconds to review their print job and decide if it was acceptable after collecting their pages from the HP Color LaserJet printer.
- 37% of pages printed on the HP Color LaserJet printer were for external use.
- 37.8% of pages printed on the HP Color LaserJet printer were for internal use.
- 25.2% of pages printed on the HP Color LaserJet printer were for individual use.

Overall Problems – Monochrome

- Using non-HP toner cartridges increases the chance of experiencing a printing problem by 54%.
- 42% of non-HP toner cartridge users experience problems with those cartridges.

Print Quality - Monochrome

- Using non-HP toner cartridges increases your chance of a print quality problem by 50%.
- 39% of non-HP toner cartridge users have a problem with print quality.

Problem Cartridges and Printer Damage - Monochrome

- 14% of non-HP toner cartridge users have a cartridge that fails, leaks, or runs out of toner prematurely.
- Using non-HP toner cartridges increases your chance of a cartridge problem by 60%.
- Using non-HP toner cartridges increases your chance of damaging the printer by 30%.

Printer Downtime and Hidden Costs - Monochrome

- 14% of non-HP toner cartridge users experience printer downtime as a result of cartridge problems.
- 19% of LaserJet users pay to use an outside print shop due to printing problems caused by non-HP toner cartridges.
- 18% of LaserJet users who experience a problem with a non-HP toner cartridge end up using an Original HP cartridge to get the job done.
- When non-HP toner cartridge users experience a problem, 74% of them must reprint at another printer.
- 27% of non-HP toner cartridge users turn to the help desk, admin, or technical support to help resolve their cartridge problems.
- For users who said their printer was down 8 hours or more, the average down time was 12.51 hours.
- When users experienced this problem, they spent an average of 15.98 minutes to describe the problem and get information in order to have the problem resolved.
- It takes users an average of 5 minutes to remove the cartridge.

Experiences Using Non-HP Cartridges in a HP Monochrome LaserJet Printer

- On average, 8 people regularly used the HP Mono LaserJet printer (the median value is 4 people.)
- It took users an average of 1.22 minutes to walk to the HP Mono LaserJet printer from their desk or workspace.
- It took users an average of 12 seconds to review their print job and decide if it was acceptable after collecting their pages from the HP Mono LaserJet printer.
- 28.8% of pages printed on the HP Mono LaserJet printer were for external use.
- 42.6% of pages printed on the HP Mono LaserJet printer were for internal use.
- 28.5% of pages printed on the HP Mono LaserJet printer were for individual use.

Conclusions

Using non-HP color toner cartridges increases the chances of experiencing a printing problem by 30%. Similarly, using non-HP monochrome toner cartridges increases the chances of experiencing a printing problem by 54%.

Non-HP toner cartridge problems, such as poor print quality and leaking toner cartridges, can cause downtime in LaserJet printers. An unusable device translates into a loss of money and valuable time. The time spent to fix the problem cartridge is time that could be spent on more productive tasks.

LaserJet users signified, to save time, sometimes they choose to outsource their print jobs due to problems caused by non-HP cartridges. This strategy, though time sensitive, can be costly to the user and the business. Often when LaserJet users encountered a problem with non-HP toner cartridges they would replace the problem cartridge with an Original HP toner cartridge, saving the employee's time, or the need for outsourcing documents.

Monochrome and color LaserJet users concluded that problems are more likely to occur using non-HP toner cartridges than using Original HP toner cartridges. Encountering these problems can cause an inconvenience for a single user or could escalate to negatively impact an entire workgroup.

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