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9B21E013

Hydropack India Pvt. Ltd.: Resolving a Data Breach

Gurudutt Nayak wrote this case solely to provide material for class discussion. The author does not intend to illustrate either effective or ineffective handling of a managerial situation. The author may have disguised certain names and other identifying information to protect confidentiality.

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On the evening of April 5, 2018, following a busy day, Amit Darekar, director of operations for Hydropack India Pvt. Ltd. (Hydropack), was sitting in his office, his thoughts on a telephone call he had received earlier in the day. The call had been from Vikas Mane, a worker in the public sector, with regard to a tender that Darekar had recently submitted for a project. Mane informed Darekar that another, little-known local company had also submitted a tender and that the design was identical to the design that Hydropack had submitted. The public sector company was seen as a safe account for Hydropack, which had successfully executed several projects for this company in the past. However, for Darekar, this was the first time he was coordinating the tender, and failure in any part of the bid would be a setback for him and his company. Had there been a data breach? Had someone leaked the company’s design? Darekar reflected on these questions and on the efforts he had put into submitting a competitive bid. He wondered what steps needed to be taken to save the tender from getting rejected and also to ensure that similar problems of data breach would not be encountered.

Company History

In 1989, Sudhir Darekar (Darekar Sr.) founded Hydropack in Belgaum, Karnataka, India, to manufacture hydraulic equipment such as jacks, presses, and power packs. Slowly and steadily, the company expanded and gained a favourable reputation for manufacturing various types of presses, jacks, and power packs as well as custom products (see Exhibit 1).

Hydropack had performed fairly well in the domestic market over the last 25 years without any significant investment in machinery, and it had managed to carve a niche for itself despite the competition. The company had been able to retain its customers, as, unlike its competitors, it was willing to incorporate last-minute requirements and to customize orders (see Exhibit 2). Further, Darekar Sr. worked with several state and central public sector companies, having gained business through the tendering process. Darekar Sr.’s hard work and dedication had borne fruit⎯Hydropack was rated as one of the leading hydraulic manufacturing companies in Karnataka (see Exhibits 3A and 3B).

Hydropack had a core team that worked on a basis of mutual respect and functioned seamlessly as one cohesive unit, resulting in a healthy work environment (see Exhibit 4). However, this employee-centric approach dissuaded the company from adopting advances in technology and being in step with the times.

Going the Way of Information Technology

In 2015, after completing his education in mechanical engineering, Darekar joined his father’s company as executive assistant to the technical director. Unlike his father, Darekar belonged to the digital age and wanted to adopt information technology (IT) in various capacities to streamline the company’s activities. His first step toward doing so was to revamp the company’s website and make it more user-friendly. The next step was to improve the company’s IT infrastructure by first setting up a well-defined system to store crucial data, and then eventually adopting an enterprise resource planning system.

In May 2017, Darekar put forward a proposal to the board of directors to revamp the entire IT infrastructure along with implementing the necessary hardware changes and network architecture data to support his proposal (see Exhibit 5). After much deliberation, he managed to convince the board to give the IT infrastructure a try. Darekar Sr., who was still skeptical, gave the go-ahead, but with the condition that Darekar would also have to take on the additional responsibility of handling all tender applications in the future.

In June 2017, after completing his postgraduate studies in product design and manufacturing, Darekar was promoted to director of operations, to charter the path for Hydropack’s IT adoption. The board gave him one year to put his plan into action. Darekar initiated discussions with Mahantesh Handigol, fondly referred to as the in-house “IT Guru” by his colleagues. Handigol was a part of the product design team and had been responsible for setting up the current IT system—a basic IT system in which a normal workstation doubled as the storage system for all of the company’s confidential designs and documents (see Exhibit 6). An external hard disk was used to replicate the data backup in case the workstation failed. Handigol used the workstation for his day-to-day activities. Handigol had also prepared a document for employees outlining guidelines on using the IT infrastructure (see Exhibit 7). Over the next few months, Darekar interacted with other employees to gauge their familiarity with the IT system, and he realized that they had just enough IT exposure to carry out their tasks. Also, the organization did not have any designated committee to define the IT vision. Darekar thus planned training sessions for the employees to educate them on safe IT practices, such as data security and reporting errors. Over the next six months, Darekar observed that the employees were more comfortable with approaching Handigol to sort out their issues than they were with sorting their issues out themselves. Darekar spoke to Ashok Naik, who had been heading Hydropack’s design team for the last 15 years, and asked him if he believed that the organization would be better off with a proper IT infrastructure that restricted unauthorized access and sharing of data across teams within and outside the organization. Naik shrugged off the concern, stating Murphy’s Law that “anything that can go wrong, will go wrong.”Darekar felt dejected and began to wonder whether the organization was ready to adopt IT.

The Breakthrough

In December 2017, Handigol submitted his resignation, citing better opportunities, and left the organization. Darekar saw this as a possible opportunity, as he felt that with Handigol out of the way, the employees would have to learn to navigate the challenges of the IT system themselves. To head the IT team, Darekar appointed Dinesh Kumar, a recent graduate with a diploma in computer science who had joined the company a month earlier and who was assisting Handigol in supporting the IT system. Darekar outlined his vision of upgrading the IT infrastructure and asked Kumar to come up with an appropriate plan of action.

In the first week of January 2018, Darekar Sr. called Darekar for a meeting with the members of the board, where he informed them of a tender offered by a reputed public sector company. It was crucial for Hydropack to win the bid, as the tender was one of the largest offered to Hydropack in terms of value. Darekar Sr. proposed that Darekar should lead the project, citing four reasons: First, the public sector company in question was a safe account for Hydropack, given that it had successfully won and executed all of the tenders that the company had floated over the last three years. Second, the tender would provide Darekar the perfect opportunity for on-the-job training on executing tenders (see Exhibit 8). Third, the client contact was Vikas Mane, an old friend of Darekar Sr., who had an excellent rapport with Hydropack. Fourth, the submission of relevant documents was to be done by January 31, 2018, providing Darekar enough time to get trained.

The proposal was accepted by the board members, and Darekar was asked to begin the tender documentation and submission process immediately, in order to meet the deadline.

The Problem

To successfully execute the tender on time, Darekar held regular meetings with various departments to ensure the documentation process proceeded smoothly. The design team was confident that the proposed solution would be accepted, as they had successfully implemented similar projects for the client previously. They pulled out earlier designs and reworked them to come up with a comprehensive solution. In two weeks, Darekar compiled the tender proposal and submitted it to the board for final approval. On January 25, Darekar formally submitted Hydropack’s bid to the public sector company.

Darekar then turned his focus to the IT infrastructure project, as the timeline of one year was fast approaching, and the project had not moved forward an inch. He directed Kumar to set up meetings with IT consultants to move the project forward. Additionally, he kept an eye out for any communication from Mane.

Later that year, on April 5, Darekar was in a meeting with an IT consultant to discuss a draft IT policy he had created when he got a call from Mane (see Exhibit 9). After exchanging pleasantries, Mane told Darekar that a little-known local company, Sky Hydro, who had also bid for the tender, had submitted designs that were almost identical to those submitted by Hydropack, but with lower pricing. Mane then told Darekar that he would call him at around 9:00 p.m. to share more details informally.

Darekar was stunned to learn of this. He asked the IT consultant if they could postpone the meeting to a later date, and then went back to his cabin. Somewhere at the back of his mind he knew that the name Sky Hydro was familiar. After trying to figure out where he had heard the name, his eyes lit up, and he checked the Facebook profile of his former fellow employee Handigol. Handigol had joined Sky Hydro after quitting Hydropack. Several questions began troubling Darekar: Had Handigol taken a copy of the designs with him before he left? Had he also taken Hydropack’s earlier submitted tender documents? Or was all of this a mere coincidence?

His mobile phone beeped, bringing Darekar back to the moment. He looked down at the mobile, and the screen displayed a message from Mane stating, “Hi. What have you decided regarding the tender?”

Gurudutt Nayak, Associate Professor, Information Systems & Technology Area at T A Pai Management Institute India.

Exhibit 1: hydropack india pvt. ltd. Product Portfolio

**Hydraulic Presses**

|  |  |  |
| --- | --- | --- |
| A picture containing appliance, sewing machine  Description automatically generated | A picture containing text, tool, power saw, device  Description automatically generated | A picture containing toy  Description automatically generated |
| A picture containing farm machine, miller  Description automatically generated | A picture containing toy  Description automatically generated | A picture containing text, power shovel, transport, red  Description automatically generated |

**Hydraulic Jacks**

|  |  |  |
| --- | --- | --- |
| A picture containing text  Description automatically generated | A picture containing text, yellow  Description automatically generated | Graphical user interface  Description automatically generated |

**Custom-Built Products**

|  |  |  |
| --- | --- | --- |
|  | A picture containing text, decorated, gear, arranged  Description automatically generated | A picture containing tool, green  Description automatically generated |

Source: Company information.

Exhibit 2: Order Execution Process

Receipt of purchase order

Final approval from the design team

Commence in-house manufacturing

Order components/consumables

Refer to design for modifications/corrections

Refer to manufacturing for rectification

Assembly

Manufacturing related

Problem in

assembly

Design related

Testing

Client approval

On-site installation

Source: Company information.

Exhibit 3a: Profit and Loss statement of Hydropack India Pvt. Ltd.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Profit & Loss Account (₹** **Millions)** | |  |  |  |
|  | | **Mar-18** | **Mar-17** | **Mar-16** |
| **INCOME** | |  |  |  |
| **Revenue from Operations [Gross]** | | **93.00** | **71.00** | **60.00** |
| **Revenue from Operations [Net]** | | **93.00** | **71.00** | **60.00** |
| **Total Operating Revenues** | | **93.00** | **71.00** | **60.00** |
| Other Income | | 14.00 | 22.00 | 6.00 |
| **Total Revenue** | | **107.00** | **93.00** | **66.00** |
| **EXPENSES** | |  |  |  |
| Cost of Materials Consumed | | 17.10 | 15.20 | 10.10 |
| Operating and Direct Expenses | | 9.60 | 9.40 | 8.90 |
| Employee Benefit Expenses | | 10.10 | 8.60 | 7.10 |
| Finance Costs | | 7.70 | 7.30 | 6.10 |
| Depreciation and Amortization Expenses | | 6.10 | 5.80 | 5.00 |
| Other Expenses | | 8.10 | 7.80 | 7.00 |
| **Total Expenses** | | **58.70** | **54.10** | **44.20** |
|  | http://img1.moneycontrol.com/images/blank.gifhttp://img1.moneycontrol.com/images/blank.gif | | | |
| **Profit/Loss before Exceptional, Extraordinary Items and Tax** | | **48.30** | **38.90** | **21.80** |
| Exceptional Items | | −0.10 | −0.10 | −0.90 |
| **Profit/Loss before Tax** | | **48.20** | **38.80** | **20.90** |
| **Tax Expenses⎯Continued Operations** | |  |  |  |
| Deferred Tax | | −17.60 | −15.30 | −10.30 |
| **Total Tax Expenses** | | **−17.60** | **−15.30** | **−10.30** |
| **Profit/Loss after Tax and before Extraordinary Items** | | **65.80** | **54.10** | **31.20** |
| Extraordinary Items | | 19.10 | 17.10 | 22.00 |
| **Profit/Loss from Continuing Operations** | | **84.90** | **71.20** | **53.20** |
| **Profit/Loss for the Period** | | **84.90** | **71.20** | **53.20** |

Note: ₹ = INR = Indian rupee; US$1 = ₹ 65.075 on March 31, 2018.

Source: Company information.

Exhibit 3b: Balance Sheet of Hydropack India Pvt. Ltd.

|  |  |  |  |
| --- | --- | --- | --- |
| **Balance Sheet (₹ Millions)** |  |  |  |
|  | **Mar-18** | **Mar-17** | **Mar-16** |
| |  | | --- | | http://img1.moneycontrol.com/images/blank.gifhttp://img1.moneycontrol.com/images/blank.gif**EQUITIES AND LIABILITIES** | |  |  |  |
| **SHAREHOLDERS’ FUNDS** |  |  |  |
| Equity Share Capital | 55.40 | 55.40 | 55.40 |
| **Total Share Capital** | **55.40** | **55.40** | **55.40** |
| Reserves and Surplus | 98.20 | 83.20 | 23.60 |
| **Total Reserves and Surplus** | **98.20** | **83.20** | **23.60** |
| **Total Shareholders’ Funds** | **153.60** | **138.60** | **79.00** |
| **NON-CURRENT LIABILITIES** |  |  |  |
| Long-Term Borrowings | 61.30 | 52.80 | 43.90 |
| Deferred Tax Liabilities [Net] | 0.00 | 0.00 | 6.70 |
| Other Long-Term Liabilities | 0.00 | 0.00 | 0.00 |
| **Total Non-current Liabilities** | **61.30** | **52.80** | **50.60** |
| **CURRENT LIABILITIES** |  |  |  |
| Trade Payables | 2.10 | 2.90 | 2.70 |
| Other Current Liabilities | 12.20 | 13.00 | 0.00 |
| Short-Term Provisions | 0.50 | 0.50 | 19.80 |
| **Total Current Liabilities** | **14.80** | **16.40** | **22.50** |
| **Total Capital and Liabilities** | **168.40** | **207.80** | **152.10** |
| **ASSETS** |  |  |  |
| **NON-CURRENT ASSETS** |  |  |  |
| Tangible Assets | 124.30 | 118.20 | 113.60 |
| **Fixed Assets** | **124.30** | **118.20** | **113.60** |
| Deferred Tax Assets [Net] | 10.10 | 8.60 | 0.00 |
| Long-Term Loans and Advances | 0.30 | 0.30 | 0.80 |
| **Total Non-Current Assets** | **134.70** | **127.10** | **114.40** |
| **CURRENT ASSETS** |  |  |  |
| Trade Receivables | 31.70 | 23.50 | 8.80 |
| Cash and Cash Equivalents | 24.50 | 16.70 | 2.50 |
| Short-Term Loans and Advances | 15.80 | 10.10 | 4.10 |
| **Total Current Assets** | **72.00** | **50.30** | **15.40** |
| **Total Assets** | **206.70** | **177.40** | **129.80** |

Note: ₹ = INR = Indian rupee; US$1 = ₹ 65.075 on March 31, 2018.

Source: Company information.

Exhibit 4: Hydropack india pvt. ltd. Organizational Chart

Sudhir Darekar

Managing Director

Manager, Sales

Sales Executives

Shrinivas Huddar Technical Director

R. S. Jakati

Finance Director

Manager, Design

Manager, HR

Amit Darekar

Executive Assistant

Manager, Finance

IT Team

Design Engineers

HR

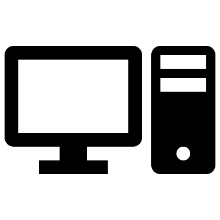
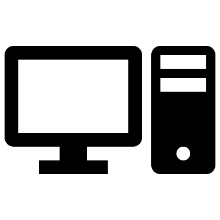
Executives

Accounts Executives

Note: IT = information technology; HR = human resources.

Source: Company information.

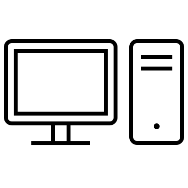
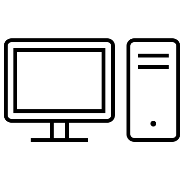
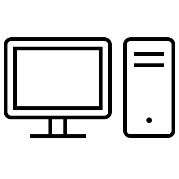
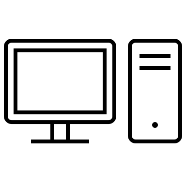
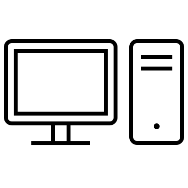
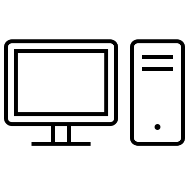
Exhibit 5: Proposed Information Technology Set-up

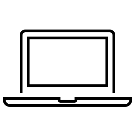
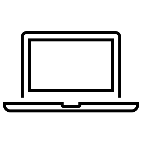
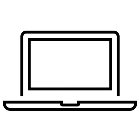
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Data Server

Design Server

Local Area Network

**     **

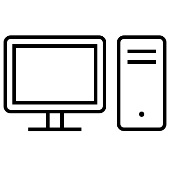
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Design Department

Sales Department

Other Departments

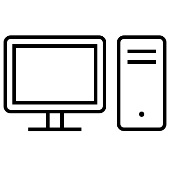
(Personnel, Operations, Accounts)

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Workstation Used by Mahantesh Handigol

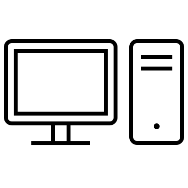
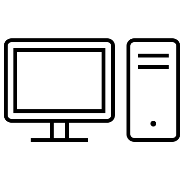
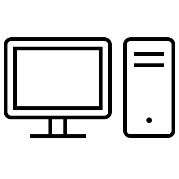
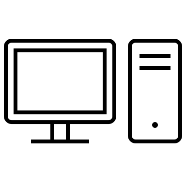
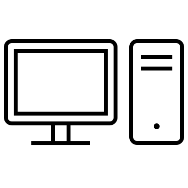
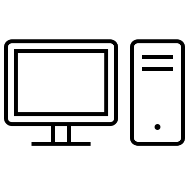
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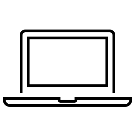
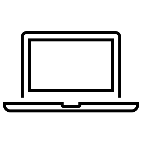
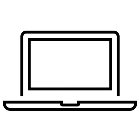
Exhibit 6: Existing Information Technology Set-up

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Local Area Network

Workstation used by Mahantesh Handigol

**     **

**  **

Other Departments

(Personnel, Operations, Accounts)

Design Department

Sales Department

Source: Company information.

Exhibit 7: guidelines for using the Information Technology system

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| **Guidelines for Using the IT System** |
| This policy is to help employees of Hydropack India Pvt. Ltd. in their use of the company’s IT infrastructure   1. All users have to regularly back up their data on the backup system once a week. The person in charge of the IT system will be the custodian of the backup server. 2. No software is to be installed by an employee. A request for software must be made to the person in charge of the IT system. 3. Any problem faced by users should be logged in the complaint register that is available through the person in charge of the IT system. 4. The person in charge of the IT system will have to resolve the complaint as soon as possible. 5. In the case that any employee has forgotten his/her password or wants to change it, he/she should get in touch with the person in charge of the IT system. 6. All IT hardware requirements must be approved by the specific department head as well as the technical director and shared with the person in charge of the IT system for procurement.   Note: IT = information technology.  Source: Company information. |

Exhibit 8: Tender Execution Process

Sales team monitors tenders announced

Sales team discusses tender with Sudhir Darekar

Approval of tender participation by board of directors

Design team works on product design

Approval of design by the board of directors

No

Was approval granted?

Yes

Finance team prepares commercial bid

Approval of the bid by the board of directors

Was approval granted?

No

Yes

Submission of the final bid

Source: Company information.

Exhibit 9: Draft Information Technology Policy

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| --- |
|  |

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| --- |
| **IT Policy (Draft)** |
| The purpose of this IT policy is to provide a standard operating procedure for the use of IT infrastructure. The policy aims to provide guidelines for employees of Hydropack India Pvt. Ltd. (Hydropack) in their use of the organization’s IT infrastructure.  As the document is presently in a draft stage, the board of directors is requested to share its inputs.  **Access Control Policy:**   1. For registration/deregistration/change of any user or any user’s role, the request should be priorly approved by the human resources (HR) department. 2. All employees are responsible for protecting sensitive data. All sensitive documents should be encrypted by the author of the document to protect it from being externally accessed. 3. The passwords used for any of Hydropack’s assets should have strong authentication and should be changed regularly. 4. Any remote access to the IT architecture should be approved by the system administrator. 5. All external access to the system should be secured by dual-factor authentication.   **Data Policy:**   1. All of the data and documents stored in the Hydropack’s workstation should be classified as follows:  * **Public**: Available to any one inside or outside of the organization. * **Restricted**: Data is available to internal employees only, or to a restricted group of people. * **Secret**: Data is available only to the author of the document; these rights can only be overridden by Amit Darekar or Sudhir Darekar.  1. The secret data stored in/transmitted into or out of the workstation should be encrypted by a password shared with restricted users. 2. An end-point security (EPS) system should be installed, with the system administrator responsible for its working.  * EPS should prevent users from copying data into any external storage mediums without prior authentication. * EPS should prevent users from uploading any files; all personal drives should be disabled. * EPS should monitor all of the files sent through email to external parties. All of the email details should be logged, and these details should be available to a defined committee.  1. All users are responsible for the confidentiality, integrity, and availability (CIA). All users should be aware of the CIA triad while accessing data. 2. All restricted and secret data should be backed up on a secure drive, to be retrieved in case an emergency arises.   **Asset Control Policy:**   1. All administrative privileges of the assets will rest with the system administrator, who will be responsible for maintaining the password and renewing it regularly. 2. All of the information assets maintained by Hydropack should be recorded by the system administrator and assigned an asset owner.   exhibit 9 (continued)  **Information Security Awareness Policy:**   1. The HR manager should be responsible for carrying out risk training for all employees, both existing and new. 2. Background checks should be conducted for new employees. 3. Access deregistration and registration should be approved by HR department members. 4. During the termination of an employee, all rights and media should be revoked from that employee. 5. A disciplinary process should be documented for any breach by employees. 6. Contractual agreements with employees should include information security responsibilities and the disciplinary process for a violation of the regulations.   **Operational Security:**   1. Tracking any deviations identified during audits and drive to closure will be the responsibility of the information security team. 2. All employees are responsible for identifying any security vulnerabilities under their purview and for reporting these to the defined committee. 3. Learnings from any incidents should be logged.   Note: IT = information technology.  Source: Company information. |