

Analysing Shape Up Framework for Product Management in Modern Day Tech Startups

– Laxmi Ahuja*

Dy. Director, AITT, Amity University, Noida

✉ lahuja@amity.edu

id <https://orcid.org/0000-0002-4486-3081>

– Rajbala Simon

Addl. Superintendent examination, AITT, Amity University, Noida

✉ rsimon@amity.edu

id <https://orcid.org/0000-0002-7204-3486>

– S. K. Sugan

Student, Amity University, Noida

✉ www.sonu1920@gmail.com

id <https://orcid.org/0009-0009-2735-7265>

– Munawar Alam

Enterprise Development at Fidelity International

✉ munawarnewdelhi@gmail.com

id <https://orcid.org/0009-0007-2820-598X>



ARTICLE HISTORY

Paper Nomenclature: Case Based Study (CBS)

Paper Code: GJEISV15I2AJ2023CBS1

Submission at Portal(www.gjeis.com): 05-Apr-2023

Manuscript Acknowledged: 15-Apr-2023

Originality Check: 30-Apr-2023

Originality Test (Plag) Ratio (Original): 11%

Author Revert with Rectified Copy: 01-May-2023

Peer Reviewers Comment (Open): 15-May-2023

Single Blind Reviewers Explanation: 18-May-2023

Double Blind Reviewers Interpretation: 20-May-2023

Triple Blind Reviewers Annotations: 30-May-2023

Author Update (w.r.t. correction, suggestion & observation): 15-June-2023

Camera-Ready-Copy: 18-June-2023

Editorial Board Excerpt & Citation: 25-June-2023

Published Online First: 30-June-2023

ABSTRACT

Purpose: Product development is typically done using an execution focused approach along with regular prioritisation and iterating based on user feedback, but execution is everything as lots of tasks can be done quickly with focus on quality. This paper presents an analysis of the Shape Up framework for product management in modern-day tech startups. This framework offers an interesting approach for managing product development with the focus on majorly prioritizing and scoping projects. The paper initially introduces us to the Shape Up framework and its important principles. All together this paper provides valuable information and instructions for the product managers seeking efficient and effective product development approach.

Design/Approach/Methodology: Analyse the Shape Up system for product management in high-tech startups using data collection, case studies, benchmarking, and feedback evaluation.

Findings: The Shape Up framework provides an efficient way to manage product development in high-tech startups by prioritizing and scoping projects to maximize efficiency and quality.

Originality/Value: This paper helps to understand and analyse the general structure of the product management system of modern technology startups. Learn how the Shape Up framework can help tech startups achieve greater efficiency and focus by implementing a structured and defined approach to product development. Explore how the Shape Up framework helps tech startups manage product development risks. Discuss how the concept of “building” can help identify potential gaps early so that teams can address them before significant resources are invested.

Paper Type: Case Based Study.

KEYWORDS: Product Development | Execution Focused Approach | Prioritization | Scoping

*Corresponding Author (Laxmi Et. Al)

- Present Volume & Issue (Cycle): Volume 15 | Issue-2 | Apr-Jun 2023
- International Standard Serial Number:
Online ISSN: 0975-1432 | Print ISSN: 0975-153X
- DOI (Crossref, USA) <https://doi.org/10.18311/gjeis/2023>
- Bibliographic database: OCLC Number (WorldCat): 988732114
- Impact Factor: 3.57 (2019-2020) & 1.0 (2020-2021) [CiteFactor]
- Editor-in-Chief: Dr. Subodh Kesharwani
- Frequency: Quarterly

- Published Since: 2009
- Research database: EBSCO <https://www.ebsco.com>
- Review Pedagogy: Single Blind Review/ Double Blind Review/ Triple Blind Review/ Open Review
- Copyright: ©2023 GJEIS and it's heirs
- Publishers: Scholastic Seed Inc. and KARAM Society
- Place: New Delhi, India.
- Repository (figshare): 704442/13

GJEIS is an Open access journal which access article under the Creative Commons. This CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0>) promotes access and re-use of scientific and scholarly research and publishing.



Introduction

Procedures followed by product development teams in order to shape and produce meaningful products is known colloquially as the Shape Up framework. It equips teams with language and strategies to manage risks and unknowns at every step of product development, with the ultimate objective of delivering a high-quality product on time.

The Shape Up technique aids software development teams in thinking more thoroughly about the correct pain points at the start of the process, allowing them to launch meaningful solutions in 6-week cycles. This approach aims to eliminate the drawbacks of traditional project management methodologies and enable startups to ship high-quality products within a fixed time frame.

Teams utilise the Shape Up framework to shape a project in such a way that it is concrete enough to get the team moving in the correct direction while remaining abstract enough for the team to generate its own solutions like said by Marnada, 2022.

The purpose of this study is to analyse the Shape Up framework for product management in high-tech startups. Exploring its rationale, key components, and real-world case studies, we examine Shape Up's benefits, challenges, and applicability for startups in the current technology landscape. Delving into the Shape Up framework, this research paper aims to contribute to the existing body of knowledge on product management practices and provide practical insights for startups looking to optimize their product development processes.

Shape Up Framework

1. Autonomous teams help management to save time on managing teams and build better projects.

A small cross functional team is given full control to define the scope, in contrast to other techniques, in which management divides the work and programmers operate as ticket takers, only implementing solutions rather than actively participating in the process.

Together, these principles form a complete circle.

- Teams are given autonomy; executives can take their mind off tracking progress.
- Lesser time being spent on management and senior people can define better projects.
- Projects are better tracked, employees have fixed bounds to operate within as mentioned by Weidner, 2014.

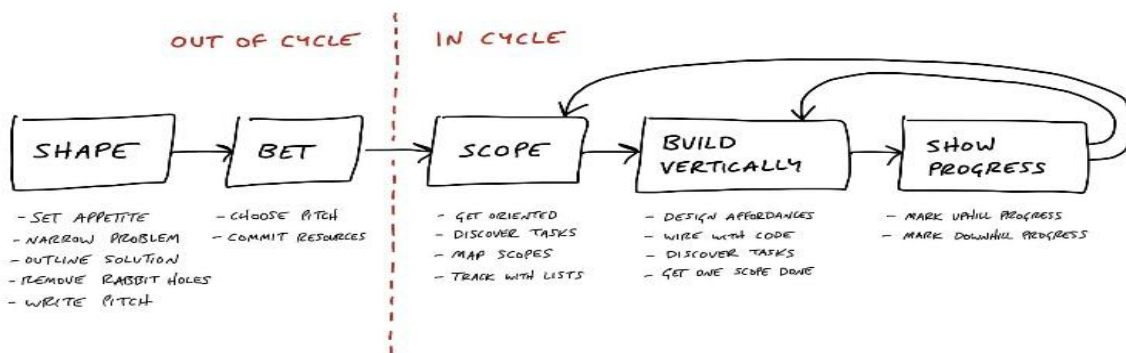


Fig. 1: Processes in Out of Cycle vs In Cycle

Write structured pitch documents

- Only 5 key features are present in a pitch document:
- Problem: The idea or something the team has narrowed down upon that motivates them to work on this.
- Appetite: What's the timeframe we are looking for along with constraints of the solution
- Solution: Empowered and autonomous teams resist all solutions offered to them, no matter how abstract.
- Rabbit Holes: Specific details regarding the implementation that is best to be avoided.
- No-gos: Usually use cases that the team doesn't want to build a solution for at the present time.

Write Bets, not backlogs

- The most radical is the concept of maintaining effort, not falling behind, as expressed by Cohen.
- No backlogs: Backlogs are dozens, if not hundreds, of jobs that accumulate throughout the course of a project's execution and for which teams do not have time.

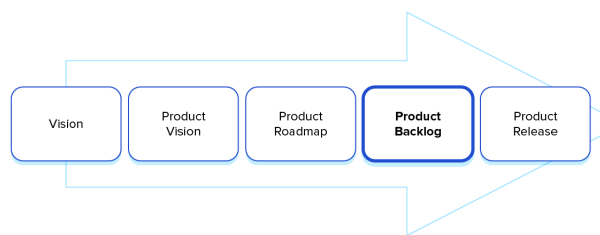


Fig. 2: Steps in Building a Product Backlog

Compared to Baseline for deciding when to finish

- Project teams should establish a baseline against the current reality for customers, how are customers solving their problems without our solution today, what's the alternative solution that this feature removes.

Six Weeks Cycle to Build Products

2-week cycles (sometimes known as "sprints") are used by several businesses, but 2-week cycles are expensive for small companies. The cumulative hours around the table to plan for the sprint isn't worth the amount of work you get out of two weeks.



Literature Review

The main idea by Takeuchi, 1986 is that most software projects can be done in a 6-week cycle if the right techniques and mindset are applied. The techniques described are:

- “Shaping” projects prior to starting work is important for stakeholder buy-in
- Keeping quality, time and resources fixed but varying scope so work is made to fit available time
- Communicating using “breadboarding” and “fat marker sketches” to have all inputs
- Giving designers and developers autonomy and an uninterrupted timebox in which to complete a project without a manager
- A cooling-down time between multiple development cycles to allow for planning, fixes and re-payment of technical debt as mentioned by Smith, 1992.
- Subdividing projects into tasks, and grouping tasks into “scopes” to organise and prioritise work
- The use of Hill Charts as a tool for communicating success metrics inside and outside the development team

The idea of using project scope as the main lever for ensuring projects finish on time has resonated strongly with Alsalemi, 2015.

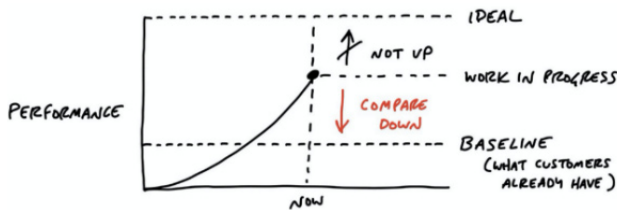


Fig. 3: A Graph of Development Time vs Scope

What this shows is that projects should be “scoped down” as said by Mirza, 2013 to the minimal set of improvements that will deliver a value increment compared to the baseline of what customers already have.

I also liked the idea of explicitly allocating “cool-down” time between projects. Schwalbe, 2009 says that after each six-week cycle, two weeks shall be set aside for context switching and resting. This is a period without any scheduled work during which teams can regroup, relax and take care of secondary tasks like fixing bugs, exploring new ideas, or toying around with new technical possibilities.

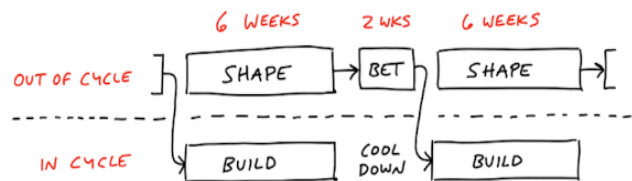


Fig. 4: An Overview of the 6-Week Cycle

I was also unconvinced by Hill Charts by Rehman, 2010. The idea with a Hill Chart is you have a subjective measure of progress within a project represented as a dot on a “hill”. My main issues with Hill Charts are:

- “Figuring things out” and “making it happen” are a continuous cycle not a linear process
- Manually moving dots around on a graph is a waste of developer time
- Measuring progress can and should be automated.

Comparison of Product Development Techniques

Table 1 : Comparing Product Development Techniques at Spotify, Amazon, Typeform and Shopify

S No.	Title	Company	About	Description
1.	Experimentation	Spotify	Spotify tests and measures for a fantastic experience	1. Think It – During discovery, teams explore ideas, test problems, and experiment with concepts. 2. Build It – In this phase, teams develop their MVP. 3. Ship It – Spotify is running on a limited run as soon as the features are released.
2.	Working backwards	Amazon	Amazon started by focusing on the finished product	When product managers have a product idea, they write an internal press release announcing the finished product. Perhaps no one is developing the idea at the moment.
3.	Two equal parts	Typeform	Typeform’s two-part system emphasizes product discovery	This breaks the MVP into three parts: 1. Earliest testable product – A testable product is the fastest way to get creative data. 2. Earliest usable product – The product has basic functionality and may lack “fun”, but the purpose is to collect data and feedback. 3. Earliest lovable product – Hoyer, 2010 says that users will refer the product to their friends.

S No.	Title	Company	About	Description
4.	Growth	Shopify	Shopify growth tension has raised the product at a new height	The product growth framework has eight steps: <ol style="list-style-type: none"> 1. Pitch Your Business - Looking for product/market fit? Trying to start an MVP? 2. Know your strategic goal –What’s your goal for your product? 3. Model the funnel – What is the user journey to start using your product. 4. Define your north star metric 5. Create a prioritization grid 6. Set targets 7. Work on execution 8. Build cross-disciplinary teams – Your team needs product, engineering, design, data and marketing skills.

Conclusion and Future Work:

Shapeup framework provides strong ideas around reducing scope and communicating design. It’s worth keeping in mind that Shape Up is a description of a process developed by a group of people who have mainly worked on one product at one company. The approach described is therefore most likely to benefit companies with a similar structure, culture, product and tech stack to Basecamp. This opens up a lot of future possibilities for the future allowing for the shape up framework to develop. The benefits of adopting the Shape Up framework outweigh these challenges. It empowers startups to focus on solving problems, iterate quickly, and deliver value to customers. The Shape Up system offers a valuable approach to product management in today’s technology startups. By adopting its principles and practices, startups can simplify their product development process, improve team collaboration, and increase the chances of creating successful and sustainable products. However, the specific circumstances and challenges of each startup must be carefully considered to tailor system implementation for optimal results.

References:

- Weidner, A. (2014). Practical Project Management with Basecamp.
- Schwalbe, K. (2009). Introduction to project management. Boston: Course Technology Cengage Learning.

- Takeuchi, H., & Nonaka, I. (1986). The new product development game. *Harvard business review*, 64(1), 137-146.
- Hoyer, W. D., Chandy, R., Dorotic, M., Krafft, M., & Singh, S. S. (2010). Consumer cocreation in new product development. *Journal of service research*, 13(3), 283-296.
- Griffin, A. (1997). The effect of project and process characteristics on product development cycle time. *Journal of marketing research*, 34(1), 24-35.
- Smith, P. G., & Reinertsen, D. G. (1992). Shortening the product development cycle. *Research-Technology Management*, 35(3), 44-49.
- Alsalemi, A. M., & Yeoh, E. T. (2015, December). A survey on product backlog change management and requirement traceability in agile (Scrum). In 2015 9th Malaysian Software Engineering Conference (MySEC) (pp. 189-194). IEEE.
- Cohn, M. (2015). Product backlog refinement (grooming).
- Mirza, M. N., Pourzolfaghar, Z., & Shahnazari, M. (2013). Significance of scope in project success. *Procedia Technology*, 9, (pp. 722-729).
- Rehman, I. U., ullah, S., Rauf, A., & Shahid, A. A. (2010, October). Scope management in agile versus traditional software development methods. In Proceedings of the 2010 national software engineering conference (pp. 1-6).
- Marnada, P., Raharjo, T., Hardian, B., & Prasetyo, A. (2022). Agile project management challenge in handling scope and change: A systematic literature review. *Procedia Computer Science*, 197, 290-300.
- Saikiran, I., & Simon, R. (2019, May). Agile Software development in distributed team Enhancement Techniques. In 2019 International Conference on Intelligent Computing and Control Systems (ICCS) (pp. 1147-1151). IEEE.



GJEIS Prevent Plagiarism in Publication

The Editorial Board had used the Turnitin – a Swedish anti-plagiarism software tool which is a fully-automatic machine learning text-recognition system made for detecting, preventing and handling plagiarism and trusted by thousands of institutions across worldwide. Original by Turnitin is an award-winning software that helps detect and prevent plagiarism regardless of language. Combining text-matching with writing-style analysis to promote academic integrity and prevent plagiarism, Original is simple, reliable and easy to use. Original was acquired by Turnitin in 2021. As part of a larger global organization GJEIS and Turnitin better equipped to anticipate the foster an environment of academic integrity for educators and students around the globe. Original is GDPR compliant with privacy by design and an uptime of 99.9% and have trust to be the partner in academic integrity (<https://www.ouriginal.com/>) tool to check the originality and further affixed the similarity index which is {11%} in this case (See below Annexure-I). Thus, the reviewers and editors are of view to find it suitable to publish in this Volume-15, Issue-2, Apr-Jun 2023.

Annexure 15.2.4

Submission Date	Submission Id	Word Count	Character Count
30-Apr-2023	2107884855 (Turnitin)	1750	9755

Analyzed Document	Submitter email	Submitted by	Similarity
3.1 CBS1_Laxmi_GJEIS Apr to Jun 2023.docx (2107884855)	lahuja@amity.edu	Laxmi Ahuja	11%

research paper

ORIGINALITY REPORT

11% SIMILARITY INDEX

10% INTERNET SOURCES

4% PUBLICATIONS

4% STUDENT PAPERS

PRIMARY SOURCES

1	www.productboard.com Internet Source	6%
2	Vernit Garg, Laxmi Ahuja. "Password Guessing Using Deep Learning", 2019 2nd International Conference on Power Energy, Environment and Intelligent Control (PEEIC), 2019 Publication	3%
3	Submitted to Intercollege Student Paper	1%
4	hdl.handle.net Internet Source	1%
5	Submitted to Clemson University Student Paper	1%

Reviewers

Memorandum



Reviewer's Comment 1: The paper analyzes the Shape Up framework for product management in high-tech start-ups. The author presents a comprehensive analysis of the Shape Up framework, highlighting its key features and out of cycle vs in cycle. The paper has useful findings for coming Tech-Start-up.

Reviewer's Comment 2: The paper critically examines the framework, highlighting its limitations and the need for customization in different start up contexts. The inclusion of real case studies and examples further strengthens the paper's practical relevance, allowing readers to better understand the framework's implementation and impact. One area for improvement is the literature review section, expanding on this section would provide readers with clearer understanding of the topic.

Reviewer's Comment 3: The paper is well-executed and has a valuable contribution to the field of product management. Authors critically examined the process out of cycle vs in cycle. While the overall content of the paper is good, there are a few areas that could benefit from further development. Firstly the methodology could have been more clear that how data has been collected and Literature review could have been more in-depth. These few limitations provide scope for future research.



Laxmi Ahuja,
Rajbala Simon, S. K. Sukan and Munawar Alam
"Analysing Shape Up Framework for Product Management
in Modern Day Tech Startups"
Volume-15, Issue-2, Apr-Jun 2023. (www.gjeis.com)

<https://doi.org/10.18311/gjeis/2023>

Volume-15, Issue-2, Apr-Jun 2023

Online iSSN : 0975-1432, Print iSSN : 0975-153X

Frequency : Quarterly, Published Since : 2009

Google Citations: Since 2009

H-Index = 96

i10-Index: 964

Source: <https://scholar.google.co.in/citations?user=S47TtNkAAAAJ&hl=en>



Conflict of Interest: Author of a Paper
had no conflict neither financially nor academically.

Editorial Excerpt

The article has 11% of plagiarism which is the accepted percentage as per the norms and standards of the journal for publication. As per the editorial board's observations and blind reviewers' remarks the paper had some minor revisions which were communicated on a timely basis to the authors (Laxmi, Rajbala, Sugan, and Alam) and accordingly, all the corrections had been incorporated as and when directed and required to do so. The comments related to this manuscript are noticeably related to the theme "**Analysing Shape Up Framework for Product Management in Modern Day Tech Startups**" both subject-wise and research-wise. The author presents a detailed explanation of the framework's core principles, its compatibility with the dynamic and fast-paced nature of tech start-ups, providing valuable insights for practitioners and researchers in the field. Additionally, it would be valuable for the author to expand on the limitations of the study and propose potential avenues for future research. This would encourage further exploration and development of the topic. Overall, the paper is well-written, well-structured, and provides a comprehensive analysis of the Shape Up framework. After comprehensive reviews and editorial board's remarks the manuscript has been categorized and decided to publish under the "**Case Based Study**" category.

Acknowledgement

I am deeply grateful to my academic fraternities who have inspired me to improve the quality of my dissertation and promote research at Amity University. I would like to thank my advisor for his guidance, support, and encouragement during the writing of this chapter.

Disclaimer

All views expressed in this paper are my/our own. Some of the content is taken from open-source websites & some are copyright free for the purpose of disseminating knowledge. Those some we/I had mentioned above in the references section and acknowledged/cited as when and where required. The author/s have cited their joint own work mostly, and tables/data from other referenced sources in this particular paper with the narrative & endorsement have been presented within quotes and reference at the bottom of the article accordingly & appropriately. Finally, some of the contents are taken or overlapped from open-source websites for knowledge purposes. Those some of i/we had mentioned above in the references section. On the other hand, opinions expressed in this paper are those of the author and do not reflect the views of the GJEIS. The authors have made every effort to ensure that the information in this paper is correct, any remaining errors and deficiencies are solely their responsibility.