

# **Guidelines for final theses, seminar papers, and IDP/project study reports**

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**Additional information** regarding your thesis, seminar paper, or report not mentioned in this slide deck can be found in the **FAQ section** of the **TUM SoM website**: <https://www.mgt.tum.de/faq-center>

Please use **templates** for the Declaration of Authorship and the coversheet provided on our homepage in the **download section**:  
<https://www.ie.mgt.tum.de/tim/teaching/final-thesis/>

<https://www.ie.mgt.tum.de/tim/teaching/project-studiesidp/>



## General remarks

- Scope and hand-in
- Formatting
- Structure, language, and style
- Use of unauthorized aids



## Guidelines

- Outline
- Text
- Footnotes
- Figures and tables
- Abbreviations
- Directory



## Citation rules

- Direct quotations
- References in the text
- Bibliography

# GENERAL REMARKS

- **Master thesis:**  
60 pages  $\pm$  10 %
- **Bachelor thesis:**  
30 pages  $\pm$  10 %
- **IDP and project study report (B.Sc., M.Sc.):**  
as discussed with supervisor
- **Seminar paper:**  
5000 words  $\pm$  10 %

This information refers only to the text part including illustrations, tables, graphics (directories and appendices are excluded from the limits).

- **Seminar paper:**  
Hand in digitally; upload to the Moodle course (unless otherwise agreed)
- **IDP/Project study report:**  
Hand in digitally; PDF-file to the supervisor via email (unless otherwise agreed)
- **Final theses:**  
Hand in digitally; please refer to the detailed information on submitting your thesis in the TUM SoM Download Center:  
<https://www.mgt.tum.de/download-center>
- References and data to be provided via USB-stick/cloud drive (after consultation with supervisor)

- **Margins:** left: 2 cm; right: 2 cm; top: 2 cm; bottom: 2 cm
- **Font:** Times New Roman
- **Font size:** 12 pt (headline font size may differ)
- **Line spacing:** 1.5
- **Alignment:** Justified
- **Page numbering:**
  - Directories (all except bibliography) - consecutive Roman numerals
  - Text with subsequent bibliography and appendix - consecutive Arabic numerals
- **Footnotes:**
  - Font size: 10 pt
  - Line spacing: 1 within footnotes, 1.5 between footnotes
  - Line break: indent next line (hanging)

- **Structure:**
  - Logical subdivision into three parts: Introduction, main part, conclusion
  - The structure should not "jump"!
  - Exact structure will be discussed with the supervisor
  
- **Language:**
  - Clear, unambiguous formulations
  - No lengthy sentences
  - Clear definitions of important terms
  - No colloquial language
  
- **Style:**
  - Linguistically independent
  - No "retelling" of studies

# GUIDELINES

- Arabic numbering (1, 1.1, 1.1.2...) without punctuation after the last digit
- 1, 2, 3, 4 ... is not particularly clear - use sub-level structure (1.1, 1.2, etc.)
- Structure should not be too detailed, e.g. two pages of outline are too much for 15 pages of text. A maximum of 3 sub-levels should be used for final theses  
*Find a good average!*
- Headings should be meaningful

- Be careful with enumerations in the text – should only be used occasionally and if needed
- A continuous text is optimal, supplemented by expressive graphics and occasional (economical and deliberate!) highlighting.
- Make paragraphs when you start a completely new train of thought within a chapter (a new line is not a paragraph)

- Footnotes are “foot” notes and are placed "at the bottom" of the page, not at the end of the entire thesis
- Further explanations, which are not necessary for a proper understanding of the text, as well as information on further literature should be placed as footnote

- Figures and tables should have consecutive numbering and include a title

*Example:* Figure 1: Potential sources of innovation

- The exact indication of sources is obligatory

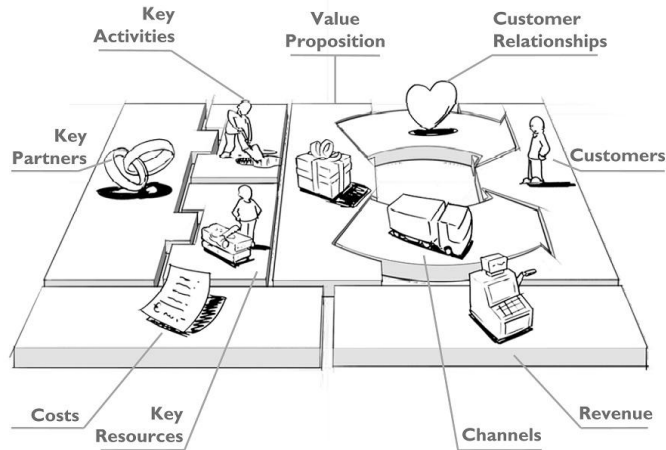
*Example:* Source: Own representation;

Source: Own presentation (based on von Hippel (2005, p. 260))

Source: von Hippel (2005, p. 260)

- Do not embed figures in the text – always separate figures with respective numbering and source indication

Figure 1: Business Model Canvas



Source: Osterwalder and Pigneur (2010, pp.18-19)

Table 1: Overview of results

*Means, standard deviations, and correlations with confidence intervals*

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1. rating	64.63	12.17						
2. complaints	66.60	13.31	.83** [.66, .91]					
3. privileges	53.13	12.24	.43* [.08, .68]	.56** [.25, .76]				
4. learning	56.37	11.74	.62** [.34, .80]	.60** [.30, .79]	.49** [.16, .72]			
5. raises	64.63	10.40	.59** [.29, .78]	.67** [.41, .83]	.45* [.10, .69]	.64** [.36, .81]		
6. critical	74.77	9.89	.16 [-.22, .49]	.19 [-.19, .51]	.15 [-.22, .48]	.12 [-.25, .46]	.38* [.02, .65]	
7. advance	42.93	10.29	.16 [-.22, .49]	.22 [-.15, .54]	.34 [-.02, .63]	.53** [.21, .75]	.57** [.27, .77]	.28 [-.09, .58]

*Note.* *M* and *SD* are used to represent mean and standard deviation, respectively. Values in square brackets indicate the 95% confidence interval for each correlation. The confidence interval is a plausible range of population correlations that could have caused the sample correlation (Cumming, 2014). \* indicates  $p < .05$ . \*\* indicates  $p < .01$ .

Source: Own representation

- Abbreviations should not be used extensively in the running text
- Common abbreviations (cf. Duden), such as "e.g." are permissible and not to be indicated in the list of abbreviations
- Permitted abbreviations that need to be included in the list of abbreviations have to be written out when occurring in the running text for the first time - afterwards abbreviation shall be used:
  - *Example*: First occurrence → European Patent Association (EPA); afterwards → EPA
  - Common abbreviations in the scientific community or specific to the field, e.g. Artificial Intelligence (AI)
  - Common abbreviations of institutions, organizations or companies, e.g. United Nations (UN)
- Using abbreviations for convenience reasons is not permitted

The final thesis/seminar paper should comprise the below listed directories (if relevant) in the following order:

- Cover sheet
- Abstract (in German and English if paper is written in German)
- Table of contents
- List of figures
- List of tables
- List of appendices
- List of abbreviations
- List of symbols
- Bibliography (*after the text part*)
- Declaration of authorship

- Each directory is on a separate page
- Directories do not include a sub-level structure
- The bibliography should be clearly laid out (e.g. indentations, paragraphs)
- The table of contents contains page numbers
- The list of figures is a directory, therefore it is included in the table of contents of the theses with all other directories. It does not contain any figures, only titles of figures and respective page numbers

# **GUIDELINES – USE OF AI TOOLS**

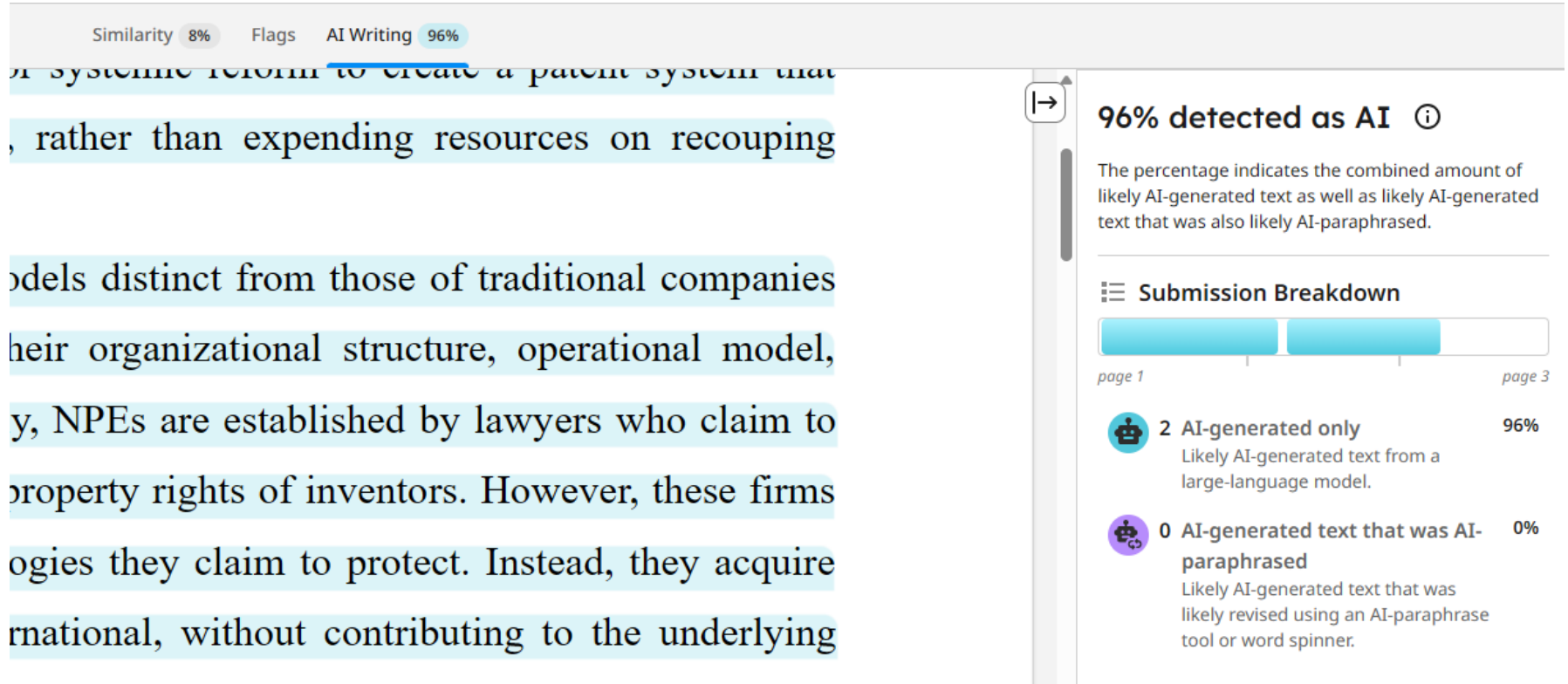
- **AI tools can be valuable assistants** in your academic work – helping you brainstorm ideas, structure your thoughts, analyze data, and refine your writing.
- You will use AI in your professional life. **We want you to master how to use AI responsibly**, as this is an important skill to learn and practice at TUM.
- **That said, there are challenges:**
  - Relying too much on AI stops you from thinking and learning.
  - Even the best LLMs make mistakes and can sometimes hallucinate.
- **In your own best interest:**
  - Our guidelines on acceptable AI uses aim to support your learning.
  - Use AI prudently, verify its output, and always read the original sources.
  - For fair grading, **transparency** is key. We need to know what *you* did vs. what AI did to grade *your work*, not the AI's.

- To ensure fairness and academic integrity, all papers are anonymized and checked with AI detection software that identifies fully or partly AI-generated content.
- **Your responsibilities:**
  - You are responsible for all content in your work, regardless of how it was created. **Critically review, properly verify, and transparently document all AI-generated content.**
  - Never include AI-generated or AI-paraphrased text verbatim without manual revision.
  - AI tools may assist you but **must not replace** your independent research, reasoning, or writing.
- These guidelines supplement the official TUM AI policies.

- **AI tools can support your research by:**
  - Brainstorming research questions, identifying relevant literature, exploring research methods:
    - *Example prompt: “Based on these three papers [paste papers] about open innovation, what potential research gaps could I explore?”*
  - Drafting preliminary interview questions based on your research design:
    - *Example prompt: “Help me develop interview questions for IP managers about the adoption of AI in their decision-making processes”*
  - Debugging code, generating code snippets for specific tasks:
    - *Example prompt: “My STATA code is giving the error r(199) on line 45. Here's the code: [paste code]. What's causing this?”*
  
- **AI tools can support your writing by:**
  - Grammar checking, language polishing (without changing content structure):
    - *Example prompt: “Check the grammar in this paragraph without changing the words or sentence structure”*

- **Avoid using AI tools in your research for:**
  - Generating fake data/sources/citations or manipulating results
    - *Example prompt: “Generate survey responses for 100 participants on innovation adoption”*
    - *Example prompt: “Adjust my regression coefficients to make the results significant”*
  - Interpreting your results or making analytical conclusions
    - *Example prompt: “Based on these arguments and related literature findings, what could be potential hypotheses?”*
  
- **Avoid using AI tools in your writing for:**
  - Writing/rewriting, restructuring, paraphrasing paragraphs, or entire sections of your paper, or synthesizing sources via AI instead of reading them
    - *Example prompt: “Write the literature review section for my thesis on digital transformation”*
    - *Example prompt: “Create a paragraph from these bullet points”*
  - Translating content without proper documentation
    - *Example prompt: “Translate everything into English and make corrections”*

- The example below resulted in an automatic failing grade (5.0).



The screenshot shows a document with the following text highlighted in light blue: "of systemic reform to create a patent system that, rather than expending resources on recouping models distinct from those of traditional companies their organizational structure, operational model, y, NPEs are established by lawyers who claim to property rights of inventors. However, these firms ogies they claim to protect. Instead, they acquire rnational, without contributing to the underlying".

At the top of the interface, there are three tabs: "Similarity 8%", "Flags", and "AI Writing 96%".

On the right side, a sidebar displays the following information:

- 96% detected as AI** ⓘ
- The percentage indicates the combined amount of likely AI-generated text as well as likely AI-generated text that was also likely AI-paraphrased.
- Submission Breakdown**
- A progress bar shows 96% AI-generated text and 0% AI-generated text that was AI-paraphrased.
- 2 AI-generated only** 96%  
Likely AI-generated text from a large-language model.
- 0 AI-generated text that was AI-paraphrased** 0%  
Likely AI-generated text that was likely revised using an AI-paraphrase tool or word spinner.

- Discuss and verify the appropriate use of AI tools for your specific thesis work with your supervisor, as guidelines may vary by project and field.
- **Track your progress by archiving thesis versions:** save drafts at supervisor-agreed milestones and keep the complete version before each revision round with your supervisor.
- **Document AI use in your paper** using the best practices shown in p.25.
- Failure to properly document AI use or archive thesis versions will be considered academic misconduct and will result in a *failing grade or grade reduction*.
- **When in doubt, please always ask your supervisor first.** We're here to help you succeed!

- Never assume correctness of AI outputs and develop your own critical thinking skills.
- Keep notes or screenshots documenting your workflow. This protects you and provides transparency.
- **Include an AI disclosure table at the end of your paper/thesis (see example template below):**

Task	AI Tool	Example Prompt	Original Text	Revised text
Grammar check	Claude Sonnet 4.5 by Anthropic	<i>“Check the grammar in this paragraph without changing the words or sentence structure”</i>	<i>“The survey data was collected from three different regions, and the preliminary results was indicating that there is significant correlations between income level and employment rate.”</i>	<i>“The survey data was collected from three different regions, and the preliminary results were indicating that there are significant correlations between income level and employment rate.”</i>
Understanding research method	ChatGPT GPT-4 by OpenAI	<i>“Explain the difference between RDD and DiD designs for causal inference”</i>	N/A	N/A
Code debugging	Google Gemini Pro	<i>“My STATA code is giving the error r(199) on line 45. Here's the code: [paste code]. What's causing this?”</i>	<i>reg y x1 x2 if year=2020</i>	<i>reg y x1 x2 if year==2020</i>

# CITATION RULES

- Basically **every thought that is taken over from someone else must be** quoted!
- All written work at the TIM Chair should use the **short citation** style (Harvard style or APA). The source shall be listed in the text immediately after the quotation.
- The correct use of citations and references is essential for all scholarly texts. Please be correct, accurate, and consistent throughout your work.

## *Direct quotations comprise literal reproductions of (partial) text*

- **Intermissions** and **omissions** are indicated by "(..)" for one word and by "(...)" for several words
- For omissions at the beginning or end of the quotation no indication is needed
- **Grammatical changes** of and **additions** to the quotation shall be shown in square brackets
- Explanatory remarks and additions to the quotation shall be succeeded by "[author's note]"

## **One author:**

- Furthermore, the structures of the decision-making problem are unclear and the variables are generally not known or not fully known (Hauschildt, 1997).
- Hauschildt (1997, p. 26) argues that ...

## **Two authors:**

- ... business-related innovations (Zahn & Weidler, 1995)

## **More than two authors:**

- Harhoff et al. (2001, p. 284) state that the following assumptions are relevant to the research and development of...

## **Several publications:**

- ... (Larisch, 1987; Wipsmith, 1988; Ohmstead, 1990)

## **Several sources of one author from the same publication year:**

- ... (Henkel 1998a) ... (Henkel 1998b)

## Websites:

- If **no information is available** (e.g. author), websites shall be specified in a footnote with the URL and date of access in the text part. If required **information is available**, the reference including URL and date of access shall be included in the bibliography.
- *Example:*

The annual turnover in 2009 amounted to 1.5 million euros.<sup>1</sup>

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<sup>1</sup> www.xyz.de, retrieved on 05/21/2019

## Interviews:

- A personal interview should not be included in the bibliography. They are not considered recoverable data (they cannot be found by a researcher). You should reference personal interviews as in-text citations instead
- Example: (J. Doe, personal communication, 12/12/2018)
- In addition, a list of all conducted interviews should be included in the thesis

- **All sources** (and only those!) referred to in the text and/or footnotes must be cited
- Sources must be listed in a bibliography (i.e. no separation according to type of source)
- Sources are listed alphabetically according to the author's surname
  - In the case of several works by the same author, the list is sorted according to the date of publication
  - Studies of an author together with co-authors are listed after the studies written by him alone
- **All** authors of a source shall be named in the bibliography and separated by a semicolon. The abbreviation et al. may only be used in the text, but not in the bibliography
- In case of several editions, the most recent edition should normally be used. However, this does not apply if a certain quote is included in an older edition or the most recent edition is not available

## Monographs:

- Name of the author, first name (abbreviated) (year of publication): *Title of the work: subtitle if applicable, edition if applicable, place of publication, publisher.*
  - Hauschildt, J. (1997): *Innovation Management*, 2nd edition, Munich, Vahlen.
  - Pleschak, F.; Sabisch, H. (1996): *Innovation Management*, Stuttgart, Schäffer-Poeschel.
  - Alisch, K.; Winter, E.; Arentzen, U. (2005): *Gabler Wirtschaftslexikon*, 16th edition, Gabler, Wiesbaden

## Contributions in collective work:

- Name of author, first name (abbreviation) (year of publication): Title of essay in: Name of the editor (ed.): *Title of the anthology*, place of publication, year of publication, page references of the article.
  - Thomke, S. (1998): The changing economics of problem-solving: Some implications for innovation and competitiveness in: Franke, N.; von Braun, C.-F. (Ed.): *Innovation Research and Technology Management: Concepts, Strategies, Case Studies*, Berlin et al. 1998, 233-248.

## Articles in journals and newspapers:

- Name of the author, first name (abbreviated) (year of publication): Title of the contribution: subtitle if applicable, *title of the journal*, volume (issue), if applicable no., page references.
  - Henkel, J. (2000): The risk-return fallacy, *Schmalenbach Business Review*, 52(3), 363-373.
  - Arundel, A. (2001): The relative effectiveness of patents and secrecy for appropriation, *Research Policy*, 30(4), 611-624.

## Working Papers:

- Name of the author, first name (abbreviated) (year of publication): Title of the working paper, university/institution where the paper was written, no., if applicable further details.
  - Henkel, J. (2004): Patterns of free revealing, Chair of Technology and Innovation Management, Working Paper, Faculty of Economics, Technical University of Munich.

## Web pages (with access date and name of the page):

- The usual details of author(s), year of publication and title should be included (if available).
- The exact URL and date of access must be specified for all web pages.
  - EVCA (2002): Risk Capital Action Plan, EVCA Network News 7, December 2002, S. 3,  
[http://www.evca.com/admin/attachments/tmp1\\_9\\_art\\_48\\_att\\_212.pdf](http://www.evca.com/admin/attachments/tmp1_9_art_48_att_212.pdf), retrieved on 02/24/2019.
- If no information about the author is available, which is otherwise given in the bibliography, the footnote with the URL in the text part is sufficient. The URL does not have to be indicated in the bibliography anymore

- Plagiarism means taking text or ideas from others and presenting them as your own. This violates academic integrity, and TUM is strict about it:
  - Failure to comply may result in a *failing grade* or *grade reduction*.
  - Even when cited, literal copying without quotation marks is not acceptable. **Changing just one or two words is still not enough** and counts as plagiarism.
  - If you must use exact wording, mark it as a direct quote with "quotation marks" and provide a proper citation.
- To ensure fairness and academic integrity, all papers are anonymized and checked with plagiarism detection software that identifies copied content in whole or in part from other sources.
- Still unsure how to cite properly? Questions or concerns?
  - TUM provides guidelines, tutorials, and courses:  
<https://www.ub.tum.de/en/citing>

- The cases below resulted in an automatic failing grade (5.0)

acquisition and determine whether the completed merger and acquisition led to a successful deal. Considering thirty of the most famous merger and acquisitions in the pharmaceutical industry, four cases have been selected which are: the acquisition of Celgene by Bristol Myers Squibb in 2019, the merger of Glaxo and SmithKline in 2000, the acquisition of Allergan by AbbVie in 2019, and the acquisition of Plough by Merck & Co. in 2009. The results have shown that the four cases in this article have successful acquisitions mainly because of the following reasons: (1) the existence of synergies and (2) the existence of economic advantages of power, financial strength, and product diversification. Companies that generate a high excess cash flow can afford to pay a premium for an acquisition. Simanjuntak, (2008). Companies that generate a high excess cash flow can afford to pay a premium for an acquisition. Simanjuntak, (2008).

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Internet Source

rs and acquisitions on drug discovery: perspective from a case study of a Japanese pharmaceutical company Research output: Contribution to journal > Review article Overview Cite BibTeX Abstract The pharmaceutical industry has experienced intermittent waves of mergers and acquisitions (M&As) since the 1980s and recently appeared to be in yet another wave. Previous studies indicated rather negative impacts of consolidation on research and development (R&D) activities. This paper analyzes whether the pharmaceutical industry has experienced intermittent waves of M&As since the 1980s and recently appeared to be in yet another wave (Shibayama et al., 2008). Today, pharmaceutical companies are considered the fastest-growing in the world (Kirchhoff & Schiereck, 2011). Mergers and acquisitions have been significantly increasing in the last decade due to many reasons, for example, the high competition in the pharmaceutical industry, patents expiration

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have a higher return than in unrelated acquisitions. This is because combining associated resources outweighs the benefits of combining unrelated resources. It is expected that target's management or board of directors would more favorably receive an acquirer with closely related resources, products, and services. Critical executives for the target may retain some influence on the acquisition decision. The target's management or board of directors would more favorably receive an acquirer with closely related resources, products, and services. Critical executives for the target may retain some influence on the acquisition decision. The target's management or board of directors would more favorably receive an acquirer with closely related resources, products, and services. Critical executives for the target may retain some influence on the acquisition decision.

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ions even view R&D as a discretionary expenditure exposed to cuts for short-term gain. 52 Numerous scholars have investigated the use of debt in the acquisition process, 53 while others have detailed the negative relationship between both levels and changes of debt and internal innovation. 54 However, the debt level of the target must also be a key factor in acquisition decisions and likely plays a key role in the cohesiveness or acceptance of the target's innovation potential can be a critical factor in the acquirer's long-term market value. The validation of the choice of target, synergies, increased usage of a firm's resources, and retention of scientific personnel are important factors in the combined firm (Sorescu et al., 2007)