

Training Provider Selection: Effects of Reputation Information on Search Investments

Marc Höglinger^{a&b}, Martin Abraham^c & Jürg Arpagaus^b

^a Institute of Sociology, University of Berne, Switzerland, ^b Kalaidos University of Applied Sciences Switzerland, ^c University of Erlangen-Nuremberg, Germany

Explain search behavior of buyers on the market for employee training:

What effect has reputation information about a first potential provider on further search investments?

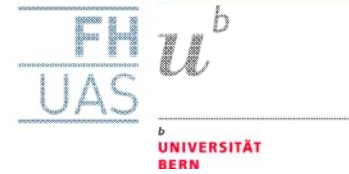
Special properties of employee training make reputation essential in provider selection

- > Quality of a training hardly assessable before training has taken place → trust problem
- > Reputation of a provider can solve this, because it allows inference of future performance
- > Reputation: history of previously observed action (Wilson 1985)

What do we already know about search investments when managers hire a training provider? (Source: Swiss Organization Survey on Employee Training 2008)

- > minimal search investments: 43% didn't "actively search"
- > small or non-existent choice set: $\frac{1}{3}$ one, $\frac{1}{3}$ two, $\frac{1}{3}$ three to four alternatives → sequential search, early satisficing
- > importance of personal relations in the search process: 49% found provider through personal contacts

Outline



- > Theory
 - > Search: Determinants of search investments
 - > Signs & Signaling: Reliability of different types of reputation information/signs
- > Combine search and signaling theory to derive hypothesis about buyers search investments
- > Methods
 - > Design of the vignette experiment
- > Results
- > Conclusion

Search: A buyers' reasonable amount of search

- > Usually some kind of search activities before entering into a business relationship with a certain provider.
- > Search activities include mainly looking for potential alternative providers and procuring additional information about potential providers.
- > How do buyer decide on the “reasonable” amount of search activities or – put differently – on when to stop searching?
- > Two theoretical perspectives (with similar predictions in the long-term):
 - > **Optimization**: marginal search costs = (expected) marginal search benefit (Stigler 1961)
 - > **Satisficing**: search ends as soon as a certain aspiration level has been achieved (e.g. a “good” provider has been found) (Simon 1956, 1979)

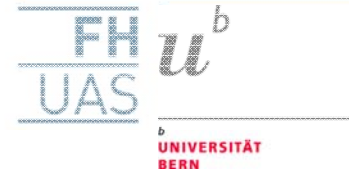
Search: Determinants of search investments



Search investments depend on costs of search, (expected) benefits of search - or on the aspiration level. And these are determined by:

- > **Individual traits of the searcher** (education level and experience of buyer, importance of a procurement) (e.g. Schmidt and Spreng 1996)
- > **Market structure** (number of potential providers, market transparency)
- > **Product characteristics** (complexity, search vs. experience good)
- > **Available information on potential provider(s)** (documentation, certificates, own experience or personal referrals, fame, reference customers)

Signs & Signaling: The reliability of reputation information



- > Reputation information (information about past behavior) is essential, because training is hardly assessable ex ante using other information.
- > Two sources of reputation information:
 - > **personal experience** (“reputation in the narrow sense”, Raub and Weesie 1990)
 - > **indirect information/signs** about performance of provider towards others (e.g. network reputation)
- > With **indirect information/signs** a new problem arises: How meaningful and reliable is the information?
 - > Reputation information is imperfect
 - > “Secondary problem of trust” (Bacharach and Gambetta 2001)
 - > Different information types and sources differ in their ability/reliability to distinguish between good and bad providers.
 - > Therefore their impact on trust and further search investments differs

- > **1. Personal referrals** are most likely the most important source of (indirect) reputation information.

H1: A positive personal referral about a potential provider leads to a reduction in further search investments.

- > However, depending on the trustworthiness of the source the referral can be more or less reliable.

We distinguish between referrals from strong vs. weak-ties and from inter- vs. extra-organizational ties.

- > **Strong ties** are more trusted than weak ties (Burt 1996, Levin and Cross 2004) and referrals from strong-ties are suggested to have a stronger impact on managerial action (Brown and Reingen 1987).

H1a: Referrals from strong-ties lead to a stronger reduction in further search investments than referrals from weak-ties

Personal referrals of different sources



- > **Intra-organizational ties**, e.g. members of the same organization, have better knowledge of specific organizational needs, are committed to the same overall organizational goals and share a strong shadow of the future.

H1b: Referrals from intra-organizational ties lead to a stronger reduction in further search investments than referrals from extra-organizational ties.

- > **2. Fame:** A provider who is famous (“bekannt”) proves that he is able to compete successfully in the market. Fame is therefore taken as a sign that he usually performs well.

H2: The fact that a potential provider is famous leads to a reduction in further search investments.

- > **3. Reference customer:** A provider is already doing business with a leading competitor.
 - > Doing business with a leading competitor is a sign of good quality. A leading competitor is assumed to have superior information at his disposal and to make a good choice (Lieberman 2006).
 - > Imitation of a leading competitor can be seen as a legitimizing mimetic strategy or as ritualized behaviour in the sense of sociological neo-institutionalism (DiMaggio and Powell 1983).

H3: The fact that a potential provider is already doing business with a leading competitor leads to a reduction in further search investments.

Mix of different types of reputation information



- > Reputation of a provider is built from a „mix of signals“ (Fombrun and Shanley 1990). Two scenarios are imaginable:
- > **Concurrent signs:** Different signs simultaneously indicate a positive reputation. The probability that the provider actually is a good provider increases → **reinforcement effect**
- > **Contradictory signs:** A positive reputation sign is contradicted by negative signs. The effect of the positive information diminishes → **deterioration effect**

H4: The effect of a positive reputation information is stronger in combination with other positive reputation information than in combination with contradicting information.

Design of the vignette study



- > **Respondents: Unit managers** (Abteilungsleiter, Geschäftsleiter), German speaking respondents of the “Swiss Organization Survey on Employee Training” (SOST) were asked to participate in a follow-up study.
- > **Response quota: 49%, N=441** (17% of original SOST sample), **2201 Vignettes**
- > Each respondent was presented **5 vignettes**.
- > Ordering of vignettes was randomized, as well as names of the fictive persons who gave the referral.

Design of the vignette study



- > Decision situation was modeled, where a responsible had to hire an external training provider for a training program for his employees.
- > Information about a first potential provider was available: 1) personal referrals, 2) fame, 3) reference costumer
- > Respondents then had to decide on how much to invest in further search for alternative providers:
“Wie viel Zeit würden Sie in dieser Situation noch in die Suche nach alternativen Anbietern investieren?”

Response was on a 6-point Likert-scale:

- keine Zeit mehr (1)
- nur noch sehr wenig Zeit (2)
- nur noch wenig Zeit (3)
- noch etwas Zeit (4)
- noch viel Zeit (5)
- noch sehr viel Zeit (6)

Design of the Study: Vignette

Situation 1 von 5

Mehrere Mitarbeitende von Ihnen benötigen eine Weiterbildung, **um mit neuen Anforderungen bei der Arbeit umgehen zu können**. Es handelt sich um eine **grössere Weiterbildungs-Massnahme**, die eine beträchtliche Investition darstellt.

Herr Hoffmann, ein Arbeitskollege aus Ihrem Betrieb mit dem Sie rein geschäftlich zu tun haben, erzählt Ihnen, er habe kürzlich eine solche Weiterbildung bei einem bestimmten Bildungsanbieter durchführen lassen und war **unzufrieden**.

Sie selbst haben den **Namen des Anbieters schon mehrmals gehört**. Ein **führender anderer Betrieb Ihrer Branche hat schon mit diesem Anbieter gearbeitet**.

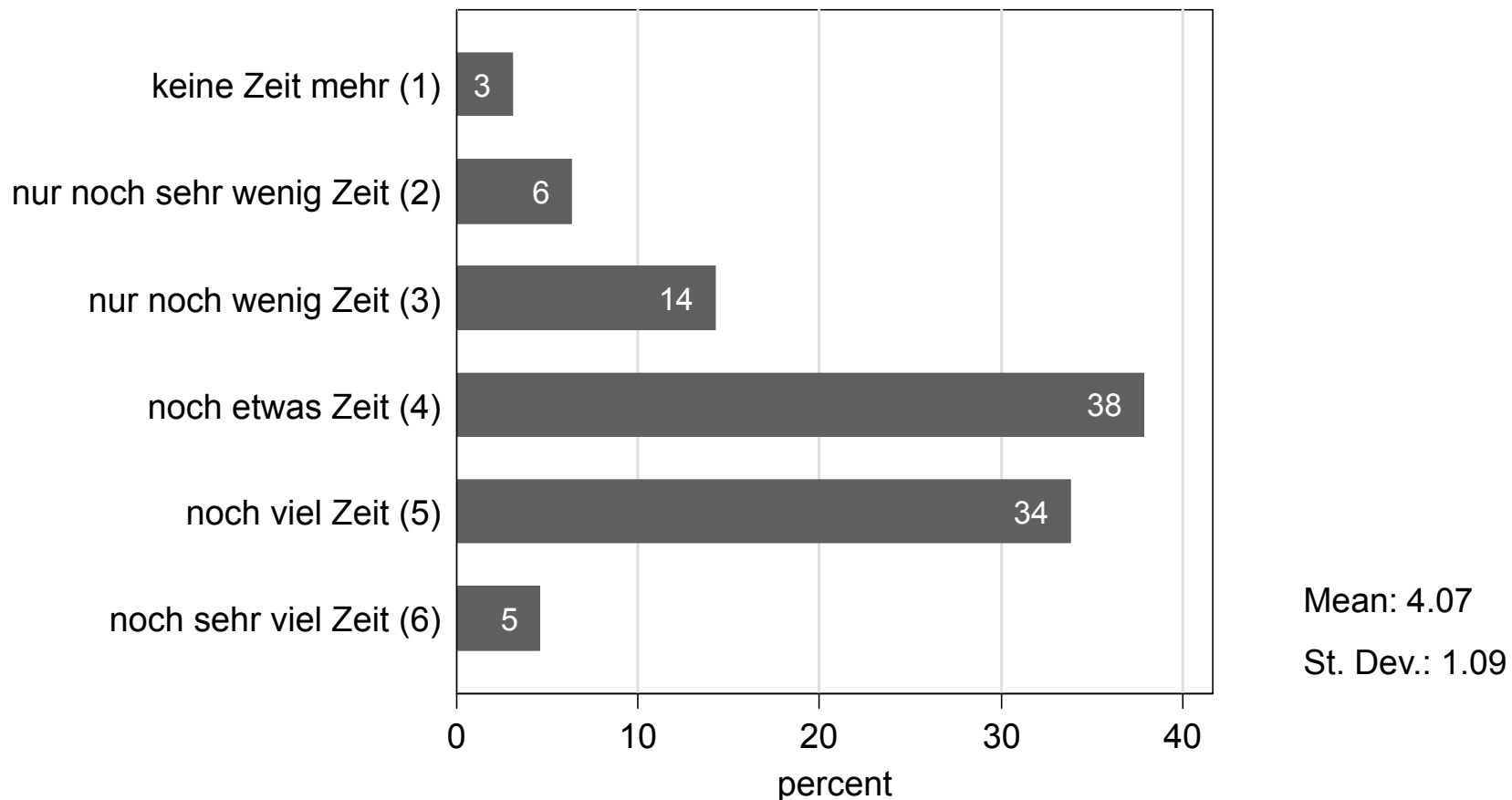
305.1

Wieviel Zeit würden Sie in dieser Situation noch in die Suche nach alternativen Anbietern investieren?

	keine Zeit mehr -3	nur noch sehr wenig Zeit -2	nur noch wenig Zeit -1	noch etwas Zeit +1	noch viel Zeit +2	noch sehr viel Zeit +3
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Dependent Variable: Further search investments

“Wie viel Zeit würden Sie in dieser Situation noch in die Suche nach alternativen Anbietern investieren?”



Results: Effects of different types of reputation information on search investments

	H	Model 1
Pos. personal referral (vs. neg.)	-	-0.790 ^{***} (0.036)
Fame	-	-0.196 ^{***} (0.036)
Reference customer	-	-0.265 ^{***} (0.036)
Big Training (vs. small)	+	0.606 ^{***} (0.036)
Training for personal develop. (vs. legal obligation)	+	0.061 (0.045)
Training for new requirements (vs. legal obligation)	+	0.029 (0.043)
Constant		4.363 ^{***} (0.052)
$\sigma(U)$ – Respondents		0.470
$\sigma(E)$ – Vignettes		0.834
ρ		0.241

Linear random-effects model. Standard error in parentheses. 2201 vignettes, 441 respondents. + $p < .10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Effects of different sources of referrals on search investments: weak vs. strong, intra- vs. extra-organizational ties

	H	Model 1	Model 2	
Pos. personal referral (vs. neg.)	-	-0.790*** (0.036)	-0.780*** (0.051)	
Pos. personal referral X strong-ties (vs. weak-ties)	-		-0.033 (0.053)	Differential effects of strong vs. weak & intra- vs. extra-organizational ties
Pos. personal referral X intra-org. tie (vs. extra-org.)	-		0.012 (0.052)	
Fame	-	-0.196*** (0.036)	-0.196*** (0.036)	
Reference customer	-	-0.265*** (0.036)	-0.265*** (0.036)	
Big Training (vs. small)	+	0.606*** (0.036)	0.606*** (0.036)	
Training for personal develop. (vs. legal obligation)	+	0.061 (0.045)	0.061 (0.045)	
Training for new requirements (vs. legal obligation)	+	0.029 (0.043)	0.029 (0.043)	
Constant		4.363*** (0.052)	4.363*** (0.052)	
$\sigma(U)$ – Respondents		0.470	0.469	
$\sigma(E)$ – Vignettes		0.834	0.834	
ρ		0.241	0.241	

Linear random-effects model. Standard error in parentheses. 2201 vignettes, 441 respondents. + $p < .10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Mix of different types of reputation information: Effects of concurrent and contradicting signs

	H	Model 1	Model 3	
Pos. personal referral (vs. neg.)	-	-0.790*** (0.036)	-0.535*** (0.064)	Effects in case of contradicting signs → „Deterioration“
Fame	-	-0.196*** (0.036)	-0.006 (0.065)	
Reference customer	-	-0.265*** (0.036)	-0.110 ⁺ (0.063)	
Referral X Fame	-		-0.292*** (0.076)	Effects of concurrent signs → „Reinforcement“
Referral X Reference customer	-		-0.223** (0.073)	
Fame X Reference customer	-		-0.087 (0.076)	
Big Training (vs. small)	+	0.606*** (0.036)	0.604*** (0.036)	
Training for personal develop. (vs. legal obligation)	+	0.061 (0.045)	0.057 (0.044)	
Training for new requirements (vs. legal obligation)	+	0.029 (0.043)	0.026 (0.043)	
Constant		4.363*** (0.052)	4.216*** (0.061)	
σ(U) – Respondents		0.470	0.473	
σ(E) – Vignettes		0.834	0.828	
ρ		0.241	0.246	

Conclusions



Reputation information itself is imperfect and poses a “secondary trust problem”

Different reputation information about a first potential provider differ in their impact on trust and on the reduction of further search investments:

- > Positive personal referrals (strong)
- > Fame (moderate)
- > Reference customer (moderate)

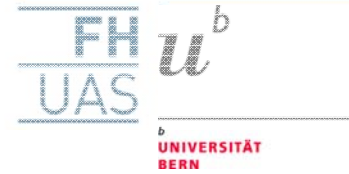
- > The source of personal referrals is not important in what concerns their impact on search investments.
 - > Weak-ties and extra-organizational ties are NOT perceived as less reliable than strong or intra-organizational ties. → low-cost situation, no incentive to cheat?

Conclusions



- > Reputation is built of a mix of different information types/signs.
 - > Contradicting signs lead to a “deterioration” of positive reputation information → effect diminishes or even vanishes
 - > Concurrent signs reinforce each other → their effect increase
- > Crucial to consider the influence of different simultaneous signs/information on reputation building and how they interact.

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Thank you!

Marc Hoeglinger^{a&b}, Martin Abraham^c & Juerg Arpagaus^b

^a Institute of Sociology, University of Berne, ^b Kalaidos University of Applied Sciences Zurich

^c University of Erlangen-Nuremberg

marc.hoeglinger@gmail.com

Merkmal	Ausprägungen (<i>kursiv</i>) und Vignetten-Text
Persönliche Empfehlung	<p data-bbox="685 181 842 218"><i>a) negativ</i></p> <p data-bbox="685 225 2002 373">Herr X (ein Arbeitskollege oder Berufskollege) ... erzählt Ihnen, er habe kürzlich eine solche Weiterbildung bei einem bestimmten Bildungsanbieter durchführen lassen und war unzufrieden.</p> <p data-bbox="685 395 831 432"><i>b) positiv</i></p> <p data-bbox="685 438 2002 587">Herr X (ein Arbeitskollege oder Berufskollege) ... erzählt Ihnen, er habe kürzlich eine solche Weiterbildung bei einem bestimmten Bildungsanbieter durchführen lassen und war zufrieden.</p>
Quelle der persönlichen Empfehlung	<p data-bbox="685 639 1171 676"><i>a) weak tie, organisationsintern</i></p> <p data-bbox="685 683 2018 831">Herr Steiger, ein Arbeitskollege aus Ihrem Betrieb, mit dem Sie rein geschäftlich zu tun haben, erzählt Ihnen, er habe kürzlich eine solche Weiterbildung bei einem bestimmten Bildungsanbieter durchführen lassen</p> <p data-bbox="685 853 1180 890"><i>b) strong tie, organisationsintern</i></p> <p data-bbox="685 912 2018 1061">Daniel, ein befreundeter Arbeitskollege aus Ihrem Betrieb, erzählt Ihnen, erzählt Ihnen, er habe kürzlich eine solche Weiterbildung bei einem bestimmten Bildungsanbieter durchführen lassen</p> <p data-bbox="685 1083 1173 1120"><i>c) weak tie, organisationsextern</i></p> <p data-bbox="685 1126 2018 1276">Herr Buchmann, ein Berufskollege aus einem anderen Betrieb, mit dem Sie rein geschäftlich zu tun haben, erzählt Ihnen, er habe kürzlich eine solche Weiterbildung bei einem bestimmten Bildungsanbieter durchführen lassen</p> <p data-bbox="685 1299 1196 1335"><i>d) strong tie, organisationsextern</i></p> <p data-bbox="685 1342 2018 1490">Martin, ein befreundeter Berufskollege aus einem anderen Betrieb, erzählt Ihnen, er habe kürzlich eine solche Weiterbildung bei einem bestimmten Bildungsanbieter durchführen lassen</p>

allgemeiner Bekanntheits- grad	<p><i>a) tief</i> Sie selbst haben den Namen des Anbieters noch nie gehört.</p> <p><i>b) hoch</i> Sie selbst haben den Namen des Anbieters schon mehrmals gehört.</p>
Referenzkunde	<p><i>a) kein</i> Der Anbieter tritt neu in Ihrer Branche auf.</p> <p><i>b) führender Betrieb aus Branche</i> Ein führender anderer Betrieb Ihrer Branche hat schon mit diesem Anbieter gearbeitet.</p>
Volumen der WB	<p><i>a) klein</i> Es handelt sich um eine kleinere Weiterbildungs-Massnahme, die eine eher geringe Investition darstellt</p> <p><i>b) gross</i> Es handelt sich um eine grössere Weiterbildungs-Massnahme, die eine beträchtliche Investition darstellt.</p>
Anlass der WB	<p><i>a) Pflicht/Gesetzgebung</i> Mehrere Mitarbeitende von Ihnen benötigen eine Weiterbildung, weil gesetzliche Bestimmungen dies verlangen.</p> <p><i>b) MA-Entwicklung</i> Mehrere Mitarbeitende von Ihnen sollen eine Weiterbildung besuchen, welche primär der persönlichen und beruflichen Entwicklung dient.</p> <p><i>c) neue Anforderungen</i> Mehrere Mitarbeitende von Ihnen benötigen eine Weiterbildung, um mit neuen Anforderungen bei der Arbeit umgehen zu können.</p>

	H	Model 1	Model 3	Model 4
Pos. personal referral (vs. neg.)	-	-0.790*** (0.036)	-0.535*** (0.064)	-0.576*** (0.075)
Fame	-	-0.196*** (0.036)	-0.006 (0.065)	-0.047 (0.076)
Reference customer	-	-0.265*** (0.036)	-0.110 ⁺ (0.063)	-0.150* (0.074)
Referral X Fame	-		-0.292*** (0.076)	-0.211 ⁺ (0.109)
Referral X Reference customer	-		-0.223** (0.073)	-0.143 (0.106)
Fame X Reference customer	-		-0.087 (0.076)	-0.006 (0.108)
Referral X Fame X Reference Customer	-			-0.159 (0.153)
Big Training (vs. small)	+	0.606*** (0.036)	0.604*** (0.036)	0.603*** (0.036)
Training for personal develop. (vs. legal obligation)	+	0.061 (0.045)	0.057 (0.044)	0.057 (0.044)
Training for new requirements (vs. legal obligation)	+	0.029 (0.043)	0.026 (0.043)	0.027 (0.043)
Constant		4.363*** (0.052)	4.216*** (0.061)	4.236*** (0.064)
$\sigma(U)$ – Respondents		0.470	0.473	0.473
$\sigma(E)$ – Vignettes		0.834	0.828	0.828
ρ		0.241	0.246	0.246