Innovation diffusion in B2B relations: New song diffusion in radio broadcasting

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Abstract
Through a multiple case study based on interviews with radio editorial staff, this article provides insights in the selection process for the use of new songs in German radio broadcasting. Radio editors learn about new songs through different channels, the intensity of the information search depends on the station's size and resources. Several criteria for new song adoption have been identified, including: congruence with format, usage by competitive stations, evaluations by radio consultancy.

Keywords: Music, innovation, radio, broadcasting, adoption, qualitative research

1   Introduction

Innovation diffusion research is of major importance for almost every industry, as it is crucial to understand how and why an innovation, a new product or a new organizational structure spreads amongst the individuals of a social system. With new product failure rates of up to 90 percent (Crawford 1977), a company's future may depend on this knowledge. For the radio broadcasting industry we understand each individual new song as an innovation. Against this background we (1) discuss the relevance of innovativeness within this industry, (2) investigate the adoption of new songs by German radio stations, (3) take a look upon the influence of radio as a tool to promote record sales and (4) give managerial implications for music business executives. Building up a multiple case study, we take a microscopic perspective on the diffusion

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process and investigate the individual adoption processes of six radio stations in Southern Germany.

1.1 Research on innovation diffusion

Modern research on innovation is mainly based upon Joseph A. Schumpeter's work. His contribution is primarily the redefinition of the concept of innovation, isolating it from pure invention. He casually declares innovation as *"'doing things differently' in the realm of economic life"* (Schumpeter 1939: 84). In other words, invention could or could not lead to an innovation and innovation does not necessarily presuppose an invention (Schumpeter 1939: 84-85; Robertson 1967: 14). Research on the diffusion process follows two main movements. Firstly, the macroscopic view of the diffusion process, which leads to several influential models established in the 1960s and extended over time until today. Key representatives of this direction are Fourt & Woodlock (1960), Mansfield (1961) and Bass (1969), who all developed models which are of substantial influence for further research (Mahajan, Muller & Bass 1990: 2).

The Bass (1969) diffusion model is the approach with the most influence on today's macroscopic diffusion research. Li & Sui (2011: 160) found this fundamental model led to over 850 articles, either applying the model to various types of industries and goods, or developing modified versions of the original approach. However, Chatterjee & Eliashberg (1990: 1058) criticise the assumption of homogeneity amongst the group of potential adopters of the Bass (1969) model. As a consequence of this assumption all individuals have the same probability of adopting the innovation over time. Accordingly, differences concerning the individual adoption times are solely defined by stochastic reasoning. This point of critique is not limited to the Bass (1969) model, but can be brought up against a variety of aggregate diffusion models and lead to the second major trend in diffusion modelling, the microscopic view on adoption decisions. Several authors apply established approaches like the agent-based modelling (Perez et al. 2008; van Ecket al. 2011; Zhanget al. 2011; Pegoretti et al. 2012) or the network theory (Abrahamson & Rosenkopf 1997; Perez et al., 2008; Ceci & Iubatti, 2012)

as research directions within the microscopic view on innovation diffusion.

With respect to diffusion research within radio broadcasting, the work of Rossman (2012) is noteworthy. He conducts a macroscopic investigation of the U.S. radio market, developing several theses that will be contrasted with our results in the latter part of this study.

1.2 Organizations' capabilities to innovate

Simon (1985) shows that in a creative mind innovation results from the interaction of different knowledge structures. For the innovative capability of organizations, this manifests itself in distinct individuals with different knowledge and capabilities interacting with each other. The difference in their backgrounds enables them to make new connections and associations beyond conventional thinking and thus strengthens the organizational ability to innovate. For Nelson & Winter (2009: 112), organizations operate in a continuum between "full routine" and "major innovation". Organizations' control units strive to keep existing routines and try to avoid mutations of the organizational structure, which could change the core of its existence. Nelson & Winter (2009) point out that on the one hand these control mechanisms help organizations to survive, but on the other hand also tend to limit the innovative capacity because any change, regardless of its nature, is considered with suspicion.

Dosi (1982: 148) argues the classical distinction between the (1) "demand-pull" and the (2) "technology-push" perspective as triggers of innovation only insufficiently explains the emergence of radical innovation, while with the first the market signals the need for new solutions through increases in demand and prices, the second considers technology as an autonomous factor pushed by organizations into the markets. Instead, Dosi (1982) describes the innovative process as rather resembling science: in his view, both scientific and technological advances result from progress along an existing trajectory (scientific/technological paradigms), while radical innovations may result only out of the emergence of completely new paradigms. He describes the establishment of

a radical innovation as affected by the social and technological environment in two ways. Firstly, these environments set the direction of mutation and secondly they define the selection among the different mutations, in a way he describes as Darwinian as certain new companies take high risks in a trial-and-error manner due to the existence of highly-rewarding (profitable) markets. Freeman & Soete (1997) share this perspective and identified further similarities between technology and science. They see the increasing scientific character of technology as one of the main changes leading to professionalization of industrial R&D activities. While innovation was mostly characterised by amateur inventive work up to the 19th century, modern technological advances usually require extensive theoretical studies alongside practical experience. Besides this scientific characteristic Freeman & Soete (1997) see the increasing complexity and division (and thus specialization) of work as the two other main changes resulting in more professionalized R&D.

1.3 Innovativeness and size of organizations

The influence of firm size on innovativeness is a matter of debate, especially given the ideas of Schumpeter (1942), as to whether a larger firm size supports a firm's innovativeness. However, modern day research on the influence of firm size on innovativeness gives a different picture. Freeman & Soete (1997) note smaller firms achieve better ratios of R&D input per major inventions and are thus more efficient in innovation terms than large firms. Hall & Rosenberg (2010) suggest large firms strive more for incremental and process type innovations than smaller firms. While the authors see no empirical evidence for radical innovations being more likely with smaller firms, Nooteboom (2000) speaks about the correlation between firm size and the type of innovation and finds smaller firms generate more radical innovations. Courvisanos (2012) identifies three reasons for the tendency of larger firms towards transformative innovations: bureaucracy, uncertainty and monopoly power.

2   Empirical results

2.1 Methodology

As conducted by Ahlkvist & Faulkner (2002), we built up a multiple case study using information collected through the use of qualitative interviews with six radio stations. Following a positivist research philosophy (Lacity & Janson, 1994) we aim to generalize as far as possible based on the information gathered from the individual interviewees. We chose a qualitative research method in order to understand innovation in radio broadcasting from an insider's perspective by exploring the vision of those who define it. To draw a comprehensive picture of innovation diffusion in radio broadcasting, we aimed for a preferably heterogeneous group of interviewees. Ritchie & Lewis (2003: 79) propose heterogeneous samples as appropriate when *"the aim is to identify central themes"*. Patton (2002: 283) continues *"any common patterns that emerge from great variation are of particular interest and value in capturing […] shared dimensions of a setting"*. This perspective also fits in with the call for further research from Ahlkvist & Faulkner (2002). In that regard, we focus on drawing a comprehensive picture of new song selection based on different selection practices at different radio stations. Overall, six Radio broadcasting stations from the Southern German region were examined. They represent a full range of radio stations in Germany, covering private and public stations, small and large as well as conservative and innovative stations. The stations differ significantly in audience size with the smallest reaching around 1,000 listeners per day (station D) and the largest station reaching around. 800,000 people per hour (station E). The only similarity the stations interviewed share is a general focus on pop music.

2.2 Data collection and measurement

The interviews were conducted in German using a semi-structured interview methodology, were held face-to-face at the respective radio stations and lasted between 40 and 80 minutes. The interviewees' iden-

tity was concealed, as was the identity of the radio stations. The interviews were recorded, manually transcribed and evaluated using the content analysis method (Mayring 2000). The analysis conducted follows the six step scheme of Krippendorff (2013), deducting the core contents from each transcribed passage. The information was thematically clustered into categories in order to enable comparison across the interviews. These categories were built upon the use of the structure of the questionnaire, as well as a preliminary screening of the interviews. After clustering the phrases, the categories were revised and further reduced to main categories. Krippendorff (2013) argues that this process of reducing the text to its relevant contents is one of the crucial steps in both qualitative and quantitative content analysis, as it allows the analysers to work with manageable representations of the collected data. Out of the six interviewed stations, four have a commercial background. Each station focuses on pop music apart from station B, which shifted its focus from pop to classic rock music. With its new format this station aimed to distinguish itself completely from other local radio stations. Currently, station B features only 40 songs in its playlist, which have been published after the year 2000. Table 1 provides an overview of the radio stations and the interview partners.

2.3 Innovativeness in Radio Broadcasting

During the interview, interviewee F asked how innovativeness could be understood within radio broadcasting. He spoke about stations that are known for being innovative and for playing something different. With their 'underdog' status they are perceived as *cool*. In his opinion they have a good image, but lack an audience. Interviewee F describes his station as very innovative and is always looking out for the newest songs, for fresh releases and for what is provided by the record label industry. For him, innovativeness does not necessarily mean working with unknown newcomers but also with the latest releases from world-famous artists.

	Station A	Station B	Station C	Station D	Station E	Station F
Title of interviewee	Music editor	Music editor	Head of music editing	Music editor	Managing editor music planning	On-air director
Classification according to (ARD-Werbung Sales & Services GmbH, 2010)	Commercial	Commercial	Commercial	Other (Non-Commercial, municipally supported)	State-run	Commercial
Music emphasis	• Rhythmic pop • Rhythmic black • R'n'B • Established pop music	• Classic Rock • 70s • 80s • Main focus: 1986	• Genre mix, explicitly no pop/rock periods • Offside the musical mainstream	• Pop music • Virtually everything besides classical and jazz music	• Pop • Rock music • Chart hits	• Contemporary pop music • No songs older than two years
Target group	• Aged between 20 and 39 years • 60 % women	• Aged between 35 and 45 years • More male than female listeners • Lower middle class to middle class • "The aged motorbike rebel"	• Aged between 14 and 30 • More male than female listeners	• Aged from infancy to 30 years old • No clear target group	• Aged between 30 and 49 years • Young families with both feet on the ground • Open minded, yet partly conservative • Good middle-class	• Aged between 15 and 26 years • People interested in new music
Broadcasting area	• Terrestrially receivable in one major south German city • DAB and Cable • Webstream	• Terrestrially receivable in one major south German city • DAB and Cable Webstream	• Terrestrially receivable in five major south German cities • DAB and Cable and satellite • DVBT in east German state • Webstream • Mobile app	• Terrestrially receivable in one major south German city • Webstream	• Terrestrially receivable in one south German state • DAB and Cable • Webstream	• Terrestrially receivable in 13 south German cities • DAB and Cable • Webstream
No. of receivers	Approx. 20,000-25,000/ hour	Approx. 18,000-19,000/ hour	Approx. 28,000/ hour	Approx. 1,000 per transmission day	Approx. 800,000/ hour	Approx. 66,000/ hour
No. of employees	Approx. 15	Approx. 20	Approx. 24-28, 21 permanently employed	4 permanently employed editors, 2 trainees and honorary moderators	Between 250 and 300	Approx. 47
Interviewee's estimated size of the radio station	5-6	5	4-5	3	10	7
Interviewee's estimated innovativeness of the radio station	Earlier very innovative, now 5-6	3	10	8	6-7	10

Table 1: Overview of interviewed radio broadcasting stations

For A innovative does not necessarily mean successful. Interviewee B agreed with this adding that non-commercial, government-run stations can be more innovative with their programming as they do not depend on advertising; they can accept their audience switching channels when a less popular song is played. B also sees other countries' radio programs as more innovative; an opinion shared by interviewee C. Interviewee E sees innovativeness as relative where the point of reference defines its manifestation. Therefore his station does not and cannot orientate or compare itself to the more youth-oriented, progressive stations known for being innovative; their tastes are not reflected in his target group. Interviewee D sees innovativeness in music programming as a function of the size of the station. He believed smaller stations select more independently and therefore play newer songs earlier.

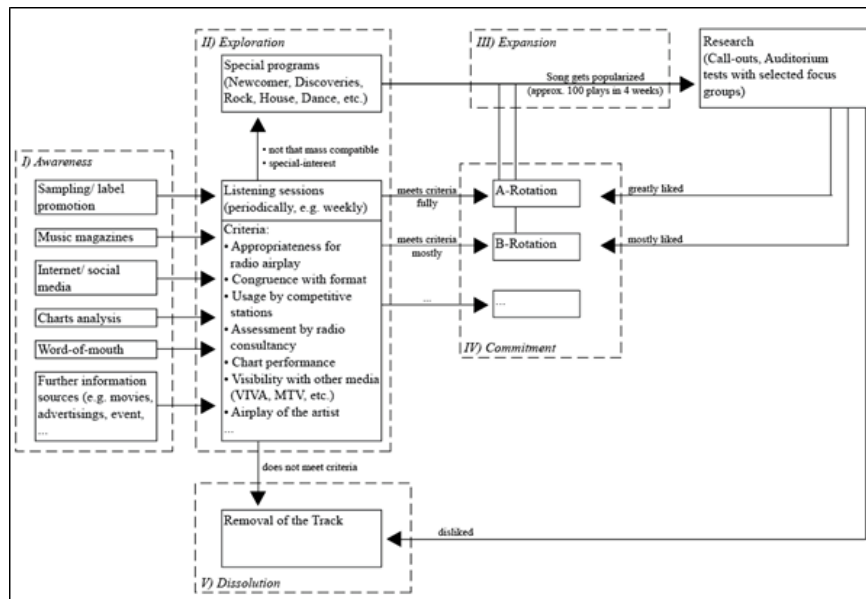*Adoption Process and Decision Making Process for New Songs*

Figure 1: New song adoption process with the use of research. (The use of research applies for Stations E and F only).

The adoption process of new songs with radio stations differs distinctly between the stations interviewed. The most structured adoption process was identified with stations E and F. These two stations use periodic research to constantly check and optimize their music rotations[2]. The different stages of the process essentially resemble the five stages of the relationship development discussed by Dwyer et al. (1987), a framework originally set-up to describe buyer-seller relationships. Figure 1 outlines the application of this framework to the new song adoption process of radio stations. The sequential steps of the scheme and the model's fitting to the adoption of new songs will be shown below.

I) Awareness

The information behaviour differs amongst the interviewed stations. Some stations actively peruse music publications, Internet sources or take feedback from their audience into consideration while others solely rely on the information provided by labels. Interviewees E and F stated it is crucial for any music editor to keep his eyes and ears open to absorb new influences from across society. F therefore adds that he does not specifically review advertising clips, new movies etc. as he expects to get inspiration about new songs as does any given consumer from those types of media. Relevant sources of information are shown in Table 2.

Major and indie labels[3] conduct their promotion differently. A, B and F stress that major labels mostly just inform them about new releases or tease a station for lagging behind its local competition. Yet, indie labels cannot operate like this. B says that they try to create enthusiasm amongst the radio producers.

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[2] The rotation a song belongs to defines its intensity of use by the automatic music-scheduling program. Different radio stations apply different segmentation criteria and use different categories to cluster their songs. (Stewart 2010).

[3] The term "major label" refers to the *big four*, the publicly traded music industry corporations EMI Group (split and partly taken over by Universal Music Group in 2012), Sony BMG, Universal Music Group and the Warner Music Group. These music groups function as umbrellas for numerous labels. "Indie labels" do not belong to one of the big four. These independent record label companies mostly do not dispose of an extensive distribution network or financial resources as the majors do (Haley 2011).

	a) Music Magazines	b) Internet and Social Media	c) Chart Analysis	d) Sampling and Label Promotion	e) Word-of-Mouth
A	Not relevant	Minor importance	Relevant medium	Relevant medium	Not relevant
		Not significantly important for music programming, rather for editorial program	Airplay charts of particular interest[4]. Weekly review of Charts to learn about new songs		Contact to other radio editors is limited to private relations. Agreement with other stations in the same areal complex to avoid program overlaps
B	Relevant medium	Minor importance	Relevant medium	Relevant medium	Relevant medium
	Relevant for special interest segments (in this case: rock music)	Looks up CD reviews online. Social media is irrelevant, due to the station's focus on established artists rather than newcomers			Informal contact with other editors about new songs; agreement with other stations in the same areal complex to avoid program overlaps
C	Relevant medium	Relevant medium	Not relevant	Relevant medium	Not relevant
	Relevant medium	Relevant medium, no delay in receiving information. Good to discover non-famous artists (free-downloads, etc.)			
D	Relevant medium	Minor importance	Not relevant	Not relevant	Not relevant
		Small station has not enough means for extensive online research		Annoying disturbance	
E	Relevant medium	Relevant medium	Relevant medium	Relevant medium	Not relevant
	International magazines relevant to discover international trends	However, some internet hits do not work in the radio as they rely on visuals, e.g. Psy – Gangnam Style		Contact to the label industry mostly collaborative, however sometimes target conflicts: labels want to push specific songs which do not necessarily fit perfectly to the station's orientation	Contact to other radio editors is dangerous due to market competitiveness
F	Minor importance	Relevant medium	Relevant medium,	Minor importance	Not relevant
	Not significantly important, medium cannot keep pace with the speed of radio	Online reviews of international charts, news about new artists, new songs from Facebook/YouTube	Especially foreign charts serve as trend radar	Perceives the promotional efforts of music labels as annoying: disturbs his work routine	

Table 2: Sources of information

F adds that the quality and level of professionalism, when in contact with the label, are mostly defined by the personality of the promoters and less by the label's size or orientation. By contrast C sees the differences in promotion activities are mostly due to different financial re-

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[4] These charts rank the songs according to the airplay they get from all German radio stations.

sources. Major labels have the advantage that, due to their funds, they can easily promote their titles via the MPN[5], a promotional tool that smaller labels cannot afford to use. The integration of a song in MPN costs approx. 350 EUR per month. E confirms this point when arguing the major labels have a higher degree of staying power in the promotion of particular songs. He also sees differences when it comes to communication between the labels and radio stations. Indie labels cannot afford as many promoters and this forces them to rely on long-distance media such as telephone or e-mail. E admits that his station does not attach great importance to indie labels, as their focus does not match the station's mainstream orientation. D cannot assess the difference between major and indie label promotion as his station is mostly sampled and promoted by indie labels or promotion agencies.

A, B and F see releases by renowned artists as sure-fire successes anyway and therefore argue that as such they do not need to be promoted by the labels. However, for newcomers, labels try to push releases more actively. F brings up that in such cases promotion may also include prizes for a competition within the radio program. Such prizes may include give-aways and merchandising articles of certain bands and even the offering to send listeners to a private concert abroad. However, no prize would be big enough to persuade F to play a song that does not fit the stations' format; the song has to fit. E shares this view, such prizes may reinforce decisions that would have been taken anyway but cannot substitute for the suitability of a song to the station's format. He underlines this by explaining that commercial stations in particular depend on their ability to select exactly those songs that best fit their audience's taste. A commercial radio station needs to avoid losing listeners to the competition in order to retain advertising. Fear of losing listeners means it is therefore unlikely such stations would adopt a song just for a prize if it does not fit the stations format. B has a similar perspective on this and his station does not accept any dilution of its format at all. Such a dilu-

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[5] MPN = Music Promotion Network (also known as Phononet) is a collective project initiated by the German record label industry. This database provides promotional information as well as the song itself to editors of radio and other media. For detailed information see Phononet GmbH (2008).

tion could happen if prizes were accepted in exchange for the airplay of songs that otherwise would have not been aired. A and E fully agree with this. D says that his station is too small to attract the labels' attention or their competitions.

II) Exploration

At this stage of the process, potential new songs are evaluated by decision-makers at the radio station. For each of the stations, apart from station D, this stage involves regular meetings. Participants at these meetings are usually the different music producers and their director. At stations A and B an outsider, a radio consultant, takes an active role in these meetings as well. The songs identified in the earlier stage are then discussed and evaluated as to whether they meet the station's criteria. Apparently the most important criterion is whether a song fits the station's format. All six interviewees mentioned this as a major point with the new song adoption process. A possible song's positive contribution to the station's image is an omnipresent criterion for the selection at C's station. Furthermore he evaluates the song in relation to its length and suitability according to different times of the day. After discussing the different criteria, the decision is taken collectively after voting. F considers competition and other media like music TV visibility and mentions that the station can only play songs with airplay-appropriate lyrics. He takes the final decision on which songs to adopt and how. F and E both follow particularly the programming of other local stations as audience responses to music differ according to their location. A and C peruse the use of a song by competitors using MusicTrace, a software tool that allows one to review which station plays a song with what frequency and when. B sees a limited autonomy in making personal choices as his station is clearly formatted and relies mostly on the radio consultant's opinion when adding a new song. D decides himself which song to feature, mainly relying on his own taste, a process opposed by all the other interviewees who stated that there is no space to take one's personal taste into consideration. Solely E admits that experience and imagination are important when it comes to designing a radio program. As an

outcome of this evaluation meeting the song may be directly integrated into one of the station's rotations.

III) Expansion

Once a song has been played for a certain time period (interview E: three/four weeks) or has had a certain number of plays (A says that it takes approximately 100 plays to bring a new song to the attention of his audience), the stations have to evaluate its future within the program. The most reliable and structured way to determine the status of a song within a station's programming is to continuously test the songs (or parts of the songs) with focus groups via telephone call-outs or auditorium tests.

The level of popularity of a song defines the rotation in which it will be used in the future. If it is no longer popular, it gets completely removed from the station's program. Stations E and F both use continuous call-outs as their testing instrument of choice to evaluate song performance. Station E conducts three tests per month to re-evaluate the role of the featured songs. Both E and F underline the importance of only testing a song when it has already been popular for a certain time with the audience. *"Don't know it, don't like it"* is the reaction that comes up if one tested a song with newcomers right away, says E. For F the research gives indications, which could not be obtained or thought of elsewise.

The remaining four interviewed stations do not use continuous research. A says that his station conducted one big research wave a year ago to determine the station's image and to compile a list of older songs which constitute the basis for the station's program. B's station proceeded alike: 1,200 songs were evaluated with the use of call-outs. As B's repertoire is very much limited to classic rock from the 1970s and 1980s, these results significantly shape the station's everyday program until, through a new research wave, new songs can make their way into the rotation. Although both stations do not use continuous research, both acknowledge the importance of this instrument. A says that he would very much like to conduct weekly or two-weekly song tests, yet

this is impossible due to the lack of financial means. In B's opinion the use of continuous research would make sense for his station as well, especially in order to expand the rotation. He adds that in Germany almost every commercially oriented radio station does use research to some extent. For C research is not an option for his station, as their program is not mainstream-oriented and therefore cannot be shaped with the use of research. For a niche station like his, he sees little value in using research, as it does not provide any benefits or new insights. Nevertheless he credits radio research with being a highly important tool for mainstream radio stations. For him the success of mainstream radio is based on the use of research. Solely D says that research is not of importance to his station and that he cannot assess the relevance of this instrument in general.

IV) Commitment

Once a song is in rotation, it is intensively exposed to its audience. For interviewed stations E and F detailed playlist statistics from Reinhart (2013) are discussed to illustrate how individual stations commit to particular songs. Both stations played approximately 80,000 songs during the year 2012, which means about 220 per day. At station F, of the total of 80,000 songs played, the first 10 most frequently played songs account for a total of over 10,000 (~ 13 percent) plays. Accordingly, several of those ten most frequently played songs were played well over 1,000 times per year. And still, the 99th most frequently played song accounts for over 250 plays in 2012. Over 60 percent of the total plays account for songs, which have been played at least once a day (on average in 2012).

   With station E the rotation is structured differently, with the first ten most frequently played songs accounting for a total of approximately 4,000 (~ 5 percent) plays. The 99th most played song accounts for just above 100 plays. Just 8 percent of the total plays account for songs, which have been played at least once a day (on average in 2012). It can be noticed that the rotation of station F is much more homogenously structured than the rotation of station E that offers a greater variety of songs to its audience.

V) Dissolution

Once a song is no longer of interest to a radio station, it is removed from the station's playlists. Interviewee E says that there is some room for manoeuvre with songs that do not test well with the target audience. He speaks of familiarising the audience with a song. Yet, if there is no sign of success with this familiarisation process, the song is inevitably removed. For C removing a song is mostly triggered by his gut feeling or negative feedback from the audience. A bases this decision on the song's overall market performance.

3   Discussion and implications

This research investigation focuses on illustrating a general adoption process for new songs based on the examination of individual radio broadcasting stations. Having spoken with radio professionals from a very diversified set of stations we can confirm the existence of different repertoires as illustrated by Ahlkvist & Faulkner (2002). However, our key findings are condensed into a general illustration of the adoption process in Figure 1. The implications of this will be contrasted to similar work in the field of innovation diffusion.

Several studies show that innovativeness positively influences a firm's potential. Rubera & Kirca (2012) found that innovativeness positively influences a firm's market position, financial position and value. Hurley & Hult (1998) say that innovativeness combined with resources leads to a higher capacity to innovate which then leads to a competitive advantage and an increase in performance. In meeting our first research objective, this does not seem to be entirely true for the radio broadcasting industry. In fact, Lokshin & Knippen (2013) see a positive impact of innovativeness in programming content on stations' audience size, referring to moderation, competitions and promotions. Nevertheless, our study indicates a really innovative music program tends to be a niche for a small target group with strong music affinities. It is especially crucial for commercial radio stations not to deter their audience, so they avoid experimenting with new songs and tend to rely on what works with fo-

cus groups or their competitors. Analogous to Rossman (2012), E sees that radio music producers work as gatekeepers between the audience and the record industry. It seems that a very innovative program is not particularly useful for the general public. This also corresponds with A's realignment of the music program in a more conservative direction. His station consulted a research company and the main result was that their program contained too much new, and therefore unknown, music, which was negatively perceived by their audience.

With regard to our second research objective, the explanation of new song adoption in German radio broadcasting, we found word-of-mouth was rather unimportant for new song diffusion in radio. All the interviewees stated their contact with staff at other radio stations is limited, particularly due to the competitive environment of radio. However, this does not mean that there is no bandwagon effect within radio; the copycats just do not rely on word-of-mouth to find out which songs are promising and which are not. Bundgaard-Nielsen (1976) found late adopters are in a more advantageous position to assess the potential of innovations than early adopters. This seems to be especially true for the radio industry where late adopters can investigate the potential of a new song with the use of the airplay charts. This tool shows which songs are played and how frequently by other stations, ranking the songs according to their accumulated airtime. Consequently, lagging stations add only songs that climb the airplay charts and as such are already identified as promising by their competitors. In contrast to the findings of Rothenbuhler & McCourt (1992), local factors (e.g. the playlists of other local stations) also matter for our interviewees.

It should be noted that among the above mentioned, many further different potential sources of information were identified, such as magazines, label promotion, websites, blogs or audience feedback just to name a few. The interviewees mostly use a mix of these channels to gather their information. The most convenient channels seem to be label promotion and sampling as all stations interviewed as sources of information mentioned them. Especially for major label releases, the informing nature of their communication is readily apparent. For small-

er, independent labels the communication with radio stations is more of a back-and-forth informal exchange focused on convincing rather than informing. At mainstream radio stations, independent labels and their promotion efforts play a minor role. Clearly the adoption of new songs is driven by external influences like label promotion or appearance in other media as well as by internal influences. Yet, these internal influences do not manifest themselves through direct communication between the individual stations as described by Mansfield (1961). In fact it is the airplay charts that represent the internal influence. As a consequence, record label executives have to place their songs at a major station. Due to the airplay charts' structure of weighting a song's plays according to the coverage of the station it is played on, the adoption by one or several major stations will make the song climb up the airplay charts which will in return generate a bandwagon effect and result in small- and medium-sized stations adopting the song as well.

Media exposure of a particular song or artist is an important characteristic. Five of the six interviewees said songs that are used in other media were of interest due to the greater potential for mainstream success. Interviewee F further underlines that the context a song is used in, whether in a product commercial or a famous sports event, may transfer to the song and increase its appeal to the general public. A primary aim of record label executives is getting their songs into mainstream attention; so particularly for unknown artists, the use of a song within a commercial or an event etc. can provide a real publicity boost, which will increase its airtime. A recognizes that exposure through other types of media is not a guarantee of success. For him this can increase the uses of a song but only to a certain extent. Above all, he sees a song's quality as the main driver of its success.

Our findings confirm the argument of Courvisanos (2012) that with larger radio stations the decision making process becomes increasingly structured and formalized. The smallest of the interviewed stations (station D) emphasizes the decision to add a song is based mainly upon personal taste and is made by the producer himself. Large stations like F or especially E rely on the qualified input of their producer's staff, deciding

in regular formal meetings and use research methods to constantly check and revise their programming. Such self-generated control mechanisms that help to ensure the survival of the larger organizations (Nelson & Winter 2009) also tend to hinder innovativeness and thus result in a more conservative radio programming as described by the radio producers: The constant fear of losing listeners makes innovativeness difficult for commercial radio stations.

Medium-sized stations cannot install and use such controls profitably so the stations examined try to optimize their programming and format with the use of annual or bi-annual research analysis, which allows them to generate a pool of timeless songs they can build their programming on. However, success is not just about planning as 'gut' feelings, experience and imagination have a certain relevance to new song selection and program design. Referring to our second research objective the framework of Dwyer et al. (1987) was successfully applied to the context of our research and illustrates the different barriers a song has to pass through before it is added to a station's playlists. The five steps identified can be generalised to describe the adoption process for new pop songs.

Our results support the initially introduced theoretical relation between firm size and innovativeness stressed by Nooteboom (2000): Smaller radio stations seem to put more emphasis on radical innovations and an innovative radio program than larger stations who rely on "professionalized R&D" through consulting and research firms or follow an imitative innovation strategy (Freeman & Soete 1997).

Discussing our third research objective, the importance of radio as a promotional tool for record labels, we found that the radio-staff interviewed had a relatively clear view of the importance of radio airplay on record sales. This is mostly in accordance to Rossman (2012: 23) who sees radio airplay as *"a major determinant of sales"*. He concludes that radio is an important driver for record sales meaning the record labels will do anything to generate airplay for their artists. In his analysis of the radio landscape over the past few decades he discusses several payola scandals with the U.S. record label industry bribing radio executives for

airplay in various ways. He sees payola as *"a permanent feature of the music industry"* (Rossman 2012: 43).

Yet, this may not be true for the German radio. Comments from interviewee A particularly imply the existence of imitation and bandwagon effects in German radio. Furthermore, the interviewees did mention the existence of promotional prizes, but they all emphasize the importance of a song fitting the station's format and the effect of a song's suitability on the loyalty of their audience. As 5/6ths of commercial-run radio stations' revenue comes from advertising sales, they are very reliant on this loyalty. State-run stations are financed mostly through radio fees and may seem less-dependant on their audience. However, they still have to take their audience's taste into consideration as pointed out by interviewee E. Finally it is open to question whether promotional prizes and competitions really influence the new song diffusion.

4   Research limitations and further research

Through the qualitative character of this study, the results represent perceptions of the interviewees. Several limitations exist and encourage further research.

Our finding that innovativeness in radio broadcasting is not really lucrative should be verified with a quantitative study. Falkenreck & Wagner (2011) conducted a quantitative analysis to investigate in what way perceived innovativeness influences perceived value, corporate reputation and customer satisfaction in the healthcare industry. A similar approach can be used for the radio industry in order to determine the impact of perceived innovativeness on radio stations' key performance indicators. In addition to such a study, another interesting angle is to investigate the extent to which more innovative stations are attractive for the record label industry as a promotional tool.

The qualitative basis of our investigation also makes it impossible to clearly distinguish the use of different channels over a length of time and to categorize the stations according to their attitude towards innovation following the ideas of Rogers (1962). With our research approach we

aim to pave the way for further investigations with a macroscopic view on the diffusion process.

The first of these two mentioned shortcomings can be addressed with a quantitative study, broad in scope, following the methods of Coleman et al. (1966) by separating the information sources in first sources, intermediate sources and final sources. Hereby, it can be investigated at which stage of the adoption process an information source matters most. Such knowledge would have significant implications for the music industry in regard to their strategic communication concepts for new songs.

In order to address the second shortcoming of our study, the identification of pioneers and followers in the German radio market, a view on the aggregated adoptive behaviour is appropriate. In this way, researchers could also investigate if Rossman's (2012) findings in regard to imitation behaviour apply to the German radio market as well. Semadeni and Anderson (2010) consent with Abrahamson (1996) that followers are more likely to adopt an incremental innovation than a radical innovation. Similar findings for new song adoption likelihood can have significant implications for record label executives on how to understand and manage bandwagon effects in the radio landscape.

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